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ABSTRACT

A study examines the place of linguistics in undergraduate curricula in the United States and Canada, the nature and structure of the curriculum leading to a bachelor's degree in linguistics, and the population served by the curriculum. The final report consists of an overview of the study, including the forms used for the survey; a directory of undergraduate linguistics programs (appendix 1, compiled by F. Heny); a summary of the status of linguistics in the undergraduate curricula (appendix 2); a paper on using existing resources to develop an undergraduate linguistics major (appendix 3, by M. Ohala and A. Zwicky); advocacy statements concerning applied linguistics, clinical linguistics, community outreach, linguistics and the study of literature, linguistics and the teaching of science, linguistics as a cognitive science, linguistics as an experimental discipline, linguistics and its relationship to cognitive science and liberal education, linguistics in the study of information and intelligence, stylistics and poetics, teaching linguistics in an interdisciplinary curriculum, teaching linguistics to non-linguistics majors, and the University of California at Santa Cruz linguistics major (appendixes 4A-40, by P. Angelis et al.). Descriptions of about 30 linguistics courses are given (appendix 5), and a suggested library collection for undergraduate linguistics programs is presented (appendix 6). (MSE)

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Final Report

Grant No. EH-20558-85

Linguistics in the Undergraduate Curriculum

D. Terence Langendoen, Principal Investigator

Linguistic Society of America
1325 18th Street, NW, Suite 211
Washington, DC 20036-6501
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28 March 1988

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Contents

Final Report

Exhibits

Exhibit A: Letter Used to Update Heny Survey
Exhibit B: LUC Questionnaire
Exhibit C: Letter to Authors of Advocacy Statements
Exhibit D: Request for Descriptions of "Innovative" Courses

Appendices

- Appendix 1: Directory of Undergraduate Linguistics Programs, Frank Heny, Ed.
- Appendix 2: The Status of Undergraduate Education in Linguistics in the United States and Canada, D. Terence Langendoen
- Appendix 3: Using Existing Resources to Develop an Undergraduate Linguistics Major, Manjari Ohala and Arnold Zwicky
- Appendix 4: Advocacy Statements
  - 4-A: Applied Linguistics: An Overview, Paul J. Angelis and Elliott Judd
  - 4-B: Clinical Linguistics, Ronnie Wilbur
  - 4-C: Community Outreach, Charles E. Cairns
  - 4-D: Linguistics and the Study of Literature, Ann Harleman Stewart
  - 4-E: Linguistics and the Teaching of Science, Wendy Wilkins
  - 4-F: Linguistics as a Cognitive Science and Its Role in an Undergraduate Curriculum, George Lakoff
  - 4-G: Linguistics as an Experimental Discipline, John H. Ohala
  - 4-H: Linguistics, Cognitive Science and Liberal Education, Frank Heny
  - 4-I: Linguistics, Cognitive Science and the Undergraduate Curriculum, Mark Feinstein and Neil Stillings
  - 4-J: Linguistics in the Study of Information and Intelligence, Thomas Wasow
  - 4-K: Some Thoughts on the Role of Linguistics in a Liberal Arts Education, Ray Jackendoff
  - 4-L: Stylistics and Poetics, Donald C. Freeman
  - 4-M: Teaching Linguistics in an Interdisciplinary Curriculum, Margaret H. Freeman
  - 4-N: Teaching Linguistics to Non-Linguistics Majors, Nancy Levin
  - 4-O: The UCSC Linguistics Major, Jorge Hankamer
- Appendix 5: Sample Undergraduate Linguistics Courses
- Appendix 6: Library List: A Suggested Library Collection for Undergraduate Linguistics Programs, Middlebury College

Linguistics in the Undergraduate Curriculum

Introduction

Until recently, linguistics was a discipline taught primarily at the graduate level. However, despite the recent growth of linguistics at the undergraduate level, linguists have felt that the discipline is still not well represented in undergraduate curricula, and many of them have been asking the Linguistic Society of America (LSA) for advice and counsel on how to establish new programs or to strengthen already existing ones. In response to this need, the LSA applied to the National Endowment for the Humanities for support of a project to study linguistics in the undergraduate curriculum, a project which has come to be known as the LUC Project. Throughout the life of the project, a high level of broadly based interest and commitment on the part of members of the discipline was manifested in the percentage of responses to the project staff's requests for information and the willingness of all who took part to volunteer their time and expertise.

The LUC Project examined the place of linguistics in undergraduate curricula in the United States and Canada, the nature and structure of the curriculum leading to a bachelor's degree in linguistics, and the population served by the curricula. On the basis of this examination, a package of materials was prepared that may be used by linguists and university administrators to enhance existing linguistics curricula and to develop new linguistics offerings. These materials do not provide explicit models for curriculum and program development, but rather contain information and suggestions that may be used in a variety of academic environments, from small liberal arts colleges to major universities.

A brief description of the materials follows; further details about them are provided in subsequent sections.

1. Directory of Undergraduate Linguistics Programs compiled by Frank Heny. A compilation of catalog descriptions of 127 linguistics programs and departments in the United States and Canada, including descriptions of undergraduate course offerings.

2. The Status of Undergraduate Education in Linguistics in the United States and Canada by D. Terence Langendoen. An overview of trends in undergraduate linguistics education in the United States and Canada over the past 15 years, including where linguistics is taught, where undergraduate degrees in linguisics are granted, what institutional arrangements exist for offering linguistics courses, enrollments of linguistics majors and minors, enrollments in linguistics courses, and number of degrees granted.

3. Using Existing Resources to Develop an Undergraduate Linguistics Major by Manjari Ohala and Arnold M. Zwicky. Information and sugges-

tions on how courses offered in various departments can be used to develop a major, how degree requirements can be formulated, and what institutional arrangements for offering a linguistics major are possible.

4. Advocacy Statements. Fifteen individually prepared statements by linguists on the role that linguistics can play in undergraduate education.

5. Sample Undergraduate Linguistics Courses. Detailed descriptions of courses offered at a variety of institutions in the United States and Canada that may be adapted at other institutions to round out a program of study for linguistics majors or to present linguistics to nonmajors.

6. Library List: A Suggested Library Collection for Undergraduate Linguistics Programs. A list intended primarily for institutions interested in establishing an undergraduate linguistics program.

Major Activities

A. Data Collection and Analysis

To develop a comprehensive picture of the current state of linguistics at the undergraduate level, data were collected from three sources: (1) An update of Frank Heny's earlier survey (Undergraduate Linguistics in the United States in 1985); (2) responses to a specially designed questionnaire, hereafter referred to as the LUC Questionnaire; and (3) the DIRECTORY OF PROGRAMS IN LINGUISTICS IN THE UNITED STATES AND CANADA, published by the LSA, of which six issues have appeared (dated 1974, 1978, 1980, 1982, 1984, and 1987).

1. Heny's 1985 survey includes an introductory article giving a rationale for including linguistics as a subject in the undergraduate curriculum. The bulk of the survey, however, consisted of the catalog descriptions of the undergraduate linguistics programs and their courses on 56 campuses in the United States. It was decided to update the survey as part of the LUC Project; accordingly, a letter (Exhibit A) was sent to the 56 institutions included in the 1985 survey and to 104 other institutions in the United States and Canada that offer undergraduate linguistics courses. Recipients were asked to send copies of their linguistics programs descriptions and course offerings as they appear in the most recently published catalogue. Such information from 127 institutions is included in the final product. Heny supervised the preparation of the document on a microcomputer, and the files were uploaded onto a mainframe at SUNY-Albany for final editing and printing. The resulting Directory of Undergraduate Linguistics Programs (Appendix 1) is the most complete listing of its kind ever compiled. The text is also available on microcomputer disks and will be distributed by the LSA Secretariat at cost.

2. The LUC Questionnaire (Exhibit B) was drafted by Consultant Panel members Daniel Brink and Victor Raskin and was used to collect information about the current status of linguistics at particular institutions, current enrollments in linguistics courses, numbers of linguistics majors and

minors, and the place of linguistics in the curriculum as a whole (e.g., which linguistics courses can be used to fulfill distribution requirements or are part of the core curriculum), which other departments require linguistics courses for their majors, what courses in other departments are required for all linguistics majors, and which linguistics courses are mandated by law for particular purposes, such as teacher training and certification. The questionnaire was purposely kept brief to encourage recipients to complete and return it. It was sent to 225 institutions in the United States and Canada; 116 responses were received.

It was originally intended that the material gathered by this questionnaire would be expanded to obtain a clearer understanding of how linguistics departments and programs relate to other departments and programs within their institutions. Steering Committee and Consultant Panel members were to interview chairs of linguistics departments and programs, other department and program chairs, and university administrators and policymakers. Unfortunately, the inability of the LSA to raise matching funds meant that this part of the project could not be carried out.

3. The final source of information for the LUC Project was the DIRECTORY OF PROGRAMS IN LINGUISTICS IN THE UNITED STATES AND CANADA published by the LSA. The various editions of this directory were consulted to gather information about such matters as numbers of undergraduate degrees granted in various years and types of administrative structures for individual departments and programs.

The data from the LUC Questionnaire and the LSA DIRECTORY OF PROGRAMS were entered into a relational database. An analysis of this data, except for the answers to questions 4-7 of the LUC Questionnaire, appears in a report entitled The Status of Undergraduate Education in Linguistics in the United States and Canada (Appendix 2). The introductory narrative of this report is followed by 40 tables, 20 each for the United States and Canada, summarizing the status of linguistics in undergraduate education in those two countries both at present and over the past 15 years. It is intended that the unanalyzed material from the LUC Questionnaire will be analyzed at a later date, and the results disseminated.

B. Commissioned Papers

Two categories of commissioned papers were originally proposed. The first was described as "Curriculum guides designed for different institutional settings. The guides (would) reflect the limitations on scholarly and financial resources in many institutions." The Steering Committee agreed that any papers in this category should be undertaken by committee members themselves. In working through the outlines for these items, the group concluded that regardless of available resources, all institutions would need to consider the same basic issues. Therefore, it was decided that a guide would be developed as a single document authored by Steering Committee members Manjari Ohala and Arnold Zwicky. Their article, Using Existing Resources to Develop an Undergraduate Linguistics Major, appears as Appendix 3.

Papers in the second category address the teaching of linguistics; they advocate linguistics as part of the undergraduate curriculum (hence the name

"Advocacy Statements"), explain the role of linguistics in a liberal education, and provide people already teaching undergraduate linguistics courses new perspectives on the field. The Steering Committee developed a master list of possible topics for these papers. Letters (Exhibit C) were sent to 24 individuals, inviting them to prepare an 8-10 page advocacy statement on a particular topic. Seventeen individuals agreed to write such a paper; 13 papers were received. All 13 papers were accepted for inclusion, some after extensive revision. All authors were asked to follow specific format guidelines in the preparation of final copy. In addition, the Steering Committee recommended the inclusion of two articles from the journal, Innovations in Linguistics Education, published by the Indiana University Linguistics Club under the editorship of Daniel Dinnsen. These 15 advocacy papers appear in Appendix 4.

The original budget allowed for the preparation of up to 23 commissioned papers. The final number was 16 (15 advocacy statements plus the Ohala/Zwicky paper).

C. Curricula

The original proposal and budget allowed for the development of model curricula. Discussion at the department chairs and program heads session held at the Society's 1986 Annual Meeting made it clear that the term "model" presented problems for our constituency. "Model" would imply that there is a right way to do this when, in fact, different things work for different situations. Members felt that material designed to provide examples of and suggestions for starting or enhancing linguistics education would be more appropriate and, in the end, more useful. As a result, nothing called or intended to serve as model curricula was developed.

Instead, descriptions of "innovative" linguistics courses were collected into one volume. The Sample Undergraduate Linguistics Courses package (Appendix 5) was assembled to encourage institutions with an undergraduate linguistics program or department to consider enhancing their offerings as well as to suggest alternatives for new programs. A letter (Exhibit D) requesting descriptions of "innovative" courses was sent to all department chairs and program heads. The materials received were reviewed independently by two Steering Committee members and a member of the Consultant Panel. Any course selected by any reviewer was included. In all, 55 course descriptions were received from 22 institutions, and 29 were selected. A standardized format was developed for presenting the course information; as a consequence, all these descriptions were retyped by the Secretariat.

Three pieces from the Innovations in Linguistics Education journal, three papers orginally submitted as advocacy statements, and a piece from Linguistics and the University Education were added to the collection. Because of their length, they were not reformatted.

D. Additional Material

At the suggestion of colleagues, the Steering Committee decided to supplement the materials envisioned in the original proposal with a list of relevant library materials considered to be basic references for undergraduate linguistics students. The Steering Committee looked at the library list assembled for the University of California system in 1967 (and updated in 1975) when it expanded the number of schools in its system, at a list developed by Frank Heny for Carleton College in 1985 when it began to entertain the notion of adding linguistics to its curriculum, and at a current list of relevant library holdings of Middlebury College, obtained with the help of faculty member Jeannine Heny. The Middlebury list was judged to be the most complete, and permission was obtained to reprint a limited number of copies. The list (Appendix 6) will be helpful to schools in the beginning phases of undergraduate linguistics education.

Staffing

The proposed staff consisted of a Principal Investigator, Senior Project Advisor, Steering Committee, Writing Group, Consultant Panel, and Project Coordinator. Except for the Project Coordinator, all were individuals with experience and expertise in undergraduate linguistics education. The Project Coordinator was an employee of the LSA Secretariat where project activities were coordinated.

Staffing patterns reflected what was proposed with four adjustments. (1) In accord with LSA policy, D. Terence Langendoen, Secretary-Treasurer of the Society, served as Principal Investigator. It was intended, however, that the prime mover of the activity would be the Senior Project Advisor, Arnold M. Zwicky. In late 1986, at his request, Dr. Zwicky was relieved of his Senior Project Advisor duties but remained an active member of the Steering Committee. His other duties were assumed by the Principal Investigator. (2) Judith Aissen, originally recruited to be a member of the Writing Group, agreed to become a member of the Steering Committee. (3) The Writing Group met in the summer of 1986 and learned through experience that the "group" approach was not a cost-effective way to produce papers; it was disbanded. (4) To reduce costs, the parttime support staff person originally included in the budget for both years of the project was not actually brought into the project until the second year.

Funding Efforts

The Society proposed to seek 50% of the estimated cost of the LUC Project from private foundations with matching funds from the NEH. Funding possibilities were unsuccessfully explored with the Mellon, EXXON, Ford, and Dana Foundations. In April 1986, the revised budget reflecting no support outside the NEH was filed.

As a result of our inability to obtain matching funds, the Senior Project Advisor, Consultant Panel members, and those who contributed advocacy statements served without receiving honoraria; plans for the interviews to collect additional data were dropped; the number of Steering Committee meetings was cut from three to two; and the two Consultant Panel working sessions were cancelled.

Dissemination of Results

Members of the Society have been kept informed of the progress of the LUC Project through notices in the LSA BULLETIN, sessions at the 1986 and 1987 Annual Meetings, and the Society's monthly mailing to linguistics department chairs and program heads. In addition, LUC Project materials were on display at the Book Exhibit at the 1987 LSA Annual Meeting. A summary of the project and an invitation to write for further information will appear in a future issue of the Chronicle of Higher Education.

Over the past two years, the Secretariat has kept a file of requests for information about undergraduate linguistics. The queries were answered at the time they were received; moreover, the correspondents were also contacted when the project was completed and were given the opportunity to request copies of LUC materials.

Materials from the project have already been used by the Georgetown University Department of Linguistics, which conducted an assessment in preparation for long range planning. In addition, the Office of the President of the University of California used LUC materials in the recent university-wide planning review of linguistics. We have been notified by both institutions that the LUC materials were a useful source of needed information.

To make the project more widely known and to ensure that materials will remain available for a period of time, copies of the LUC Project materials will also be supplied to the Educational Resources Information Center (ERIC), a computerized education database accessed world-wide.

Linguistics Program
[illegible]

EXHIBIT A

State University of New York at Albany

March 29, 1987

Dear Colleague:

Directory of Undergraduate Linguistics in the U.S. and Canada.

In 1984 I gathered information drawn from catalogues and departmental sources, regarding undergraduate programs in linguistics at universities in the United States. This material was lightly edited, largely to condense it a little and remove, for example, courses like "Independent Study", and was incorporated into a Directory of Undergraduate Programs in the United States. The Directory was never published, but has circulated quite widely, and was made available to anyone interested who contacted me or the secretariat of the Linguistic Society.

I undertook the preparation, and later distribution, of the Directory on my own initiative, with assistance from the University of Vermont and Carleton College. No attempt was made to ensure that coverage was complete, though I tried to include most institutions offering a major in Linguistics. A number of obviously important programs were left out, and in a couple of cases I included institutions which did not offer a major.

As part of the project **Linguistics in the Undergraduate Curriculum** (LUC) for which the Linguistic Society of America received NEH funding, an attempt is now being made to update the directory and to make it even more representative. It will be more widely available, too, through some form of publication. I am writing to you on behalf of the LSA LUC Steering Committee which is undertaking this work. We believe that all institutions with relevant programs will wish to be included in this new directory and that they will want their programs to be represented by the most appropriate descriptions available.

The Steering Committee has decided to include, as far as possible, all -- and only -- **programs with a major or minor in linguistics.** Your institution was not included in the original directory, but it seems likely that it would warrant inclusion in the revised volume. If you think that this is so, would you please send me the information requested overleaf.

1400 Washington Avenue, Albany, New York 12222

PLEASE DO THE FOLLOWING:

1. Send me a copy of the most recent catalogue descriptions of your undergraduate program and of all linguistics courses you offer at the undergraduate level. You may also wish to send me a copy of other relevant "official" descriptions (e.g. departmental literature), and if some of the courses still described in your catalogue are never offered, conveying a misleading picture of your current offerings, mark the copy in red ink so that these are not included. **Please do not add your own descriptions as if they were "official". Copies of catalogues or departmental literature should accompany any requests for inclusion.**

2. Fill in the form at the bottom of this letter.

3. Return the form and the marked up copy to me at the above address **by April 15.** If they arrive after that date we cannot guarantee to include your program.

4. If you yourself are not in a position to help us with this information, please do pass it on to whoever can help, stressing the urgency and notifying me.

Thank you very much for your assistance.

Sincerely,

Frank Heny

. . . .

Name of Institution:..

Status (Program/Department etc.):...

Department/College within which Linguistics is Placed:...................................

Name of Contact Person:..

Address for Correspondence:..

....Telephone:........................

Remarks:
e.g. special strengths or other characteristics of the program

Linguistics in the Undergraduate Curriculum EXHIBIT B

Please complete and return this questionnaire by 1 May 1987 to: LUC Project, Linguistic Society of America, 1325 18th St NW, Suite 211, Washington, DC 20036. Please use the back or attach additional sheets of paper if necessary.

Question 1: To be answered by all institutions.

1. **What is the status of linguistics at your institution? Please check and fill in the appropriate blanks.**

   a. _____ Department of linguistics (and ______________________)

   _____ Program in linguistics (and __________________________)

   _____ Offerings in linguistics in other departments. Please list the departments below:

   b. _____ Undergraduate major _____ Undergraduate major with ____________

   _____ Undergraduate minor _____ M.A./M.S. _____ Ph.D.

Questions 2-6: To be answered only by institutions offering an undergraduate major or minor in linguistics.

2. a. Current number of undergraduate majors in linguistics __________

   b. Current number of undergraduate minors in linguistics __________

   c. Average number of students in linguistics each semester or quarter __________

   (If exact figures are not available, please estimate.)

3. If your institution has a Department or Program in linguistics, what administrative structure does it fit into (e.g., School of Humanities, School of Social Sciences, Liberal Arts and Sciences)?

4. a. If your institution has general education requirements for the undergraduate degree, which, if any, of these requirements are satisfied by offerings in linguistics?

Requirement	Linguistics Course

   b. If your institution has a core curriculum, what place, if any, does linguistics have in it?

5. a. Please list linguistics courses required by other programs at your institution.

Course Title	Required By

   b. Please list courses in other programs that linguistics requires.

6. Please list any linguistics courses mandated by LAW in your state (e.g., for teacher training).

Course	Required for (e.g., ESL teacher certification)

7. Additional comments.

EXHIBIT C

Linguistic Society of America

D. Terence Langendoen, Secretary-Treasurer

23 January 1987

Dr. Mark Feinstein
Dr. Neil Stillings
School of Communications & Cognitive Science
Hampshire College
Amherst, MA 01002

Dear Mark and Neil:

I am writing you on behalf of the Linguistics in the Undergraduate Curriculum project of the LSA. As you probably already know, this NEH-sponsored project was undertaken to examine the current state of undergraduate instruction in linguistics in the United States and to provide materials that can help to improve it. In aid of the second goal, we are commissioning coherent personal statements that advocate linguistics as part of the undergraduate curriculum and explain the role of linguistics in a liberal arts education. It has been suggested that you would be good candidates for preparing such a statement for us on the topic of linguistics as a cognitive science.

The audience we have in mind for these statements is composed of educated lay people. We expect that our linguist colleagues (especially those who are proposing to create or modify linguistics courses or programs at their institutions) will find one or more of the statements helpful in their thinking about the teaching of undergraduates and that some might want to adapt statements in material they prepare for (nonlinguist) administrators at their institutions. It follows that your statement should not only express a personal vision, but should also be intended to be persuasive. An appropriate length would be roughly 10-20 (double-spaced) pages.

There are several ways you might want to approach your topic. You might, for instance, focus on linguistics as part of a general liberal arts and sciences education. Or you might emphasize the service that linguistics can provide to other programs at an institution (to language-and-literature departments, or computer science, or education, or speech, to choose only a few familiar examples). Or you might address the linguistics major. Or you might consider a linguistics component of a specific interdisciplinary program. The choice is yours. The level of specificity is also up to you. You might want to sketch a curriculum, or even a particular course, as a way of realizing the goals you have articulated; this would certainly be appropriate in a statement about a linguistics major program, but might not be in other contexts.

We will be happy to receive either rough drafts or more polished pieces, but in either case I will seek comments, on the form and content of your piece, from other members of the project steering committee or from linguists who have agreed to serve as consultants for the project. I will

Suite 211, 1325 18th Street, N.W., Washington, D.C. 20036-6501 Telephone: (202) 835-1714

send these comments on for you to consider. The final versions of the statements are not LSA position papers--they are not intended to represent the opinions or practices of linguists as a group, but rather to exemplify individual visions, and they will carry a disclaimer to this effect--so that your statement will appear under your own names as authors.

I hope very much that you will be able to accept this important task. If possible, I would like to receive a draft of your statement by **1 May 1987**. I look forward to hearing from you via the enclosed postcard by **1 March 1987**. Thank you in advance for your prompt response.

Sincerely,

D. Terence Langendoen

D. Terence Langendoen, Principal Investigator
Linguistics in the Undergraduate Curriculum Project

DTL: kt

Enclosure

EXHIBIT D

UNIVERSITY OF CALIFORNIA, SANTA CRUZ

BERKELEY • DAVIS • IRVINE • LOS ANGELES • RIVERSIDE • SAN DIEGO • SAN FRANCISCO SANTA BARBARA • SANTA CRUZ

SANTA CRUZ, CALIFORNIA 95064

August 11, 1986

To: Consultant Panel, LUC Project
From: Judith Aissen, on behalf of the Writing Group, LUC Project

One goal of the Linguistics in the Undergraduate Curriculum project of the LSA is to distribute information about pedagogical resources in linguistics. As part of that subproject, we are gathering information about courses of an unusual or innovative nature that could be made available in packet form to interested colleagues. By "unusual" or "innovative", we mean courses whose design or readings or conception is non-standard. (There is no need to disseminate information about courses which closely follow standard textbooks.)

There are two ways you can help us. One is by sending material from a course you yourself have taught. The other is by alerting us to interesting courses taught by others (e.g., your colleagues). Suggestions of other people we might contact about their courses will be extremely useful.

We are interested in several kinds of courses. The first is INTRODUCTORY courses, both for majors and non-majors. Basic courses which deal with the nature of language from some particular perspective (e.g., Language and Culture, Modern English Grammar, Language Change, Languages of the World, Etymology and the English Language) are relevant here, as well as the familiar Introduction to Language and Introduction to Linguistics. A second category is INTERDISCIPLINARY courses, courses dealing, for example, with the connections between linguistics and psychology, foreign language teaching, or medicine. Also relevant are linguistics courses tailored to students in some field other than linguistics (e.g., Structure of Spanish for Spanish majors, Semantics for philosophy and/or computer science majors, Semiotics and Language for students of literature). NON-INTRODUCTORY courses aimed primarily at majors (e.g., Morphology, Poetics, Discourse Analysis, Transformational Syntax) make up a third category. These categories are identified to suggest the broad range of courses we are interested in rather than to exclude courses of any particular types.

At present, we are soliciting syllabi for such courses where syllabi exist. In the absence of a syllabus, we would welcome a less detailed statement which explains clearly the conception of such a course. Material should be sent to Arnold Zwicky at the LSA Secretariat by October 15, 1986 so that it can be available for discussion at the Winter LSA meeting. We very much appreciate your help.

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APPENDIX 1

Directory of Undergraduate Linguistics Programs

Compiled By

Frank Heny

The views expressed are those of the authors and do not necessarily reflect the position of the LSA or the National Endowment for the Humanities.

The Linguistics in the Undergraduate Curriculum Project was funded by the National Endowment for the Humanities, Grant #EH-20558-85, D. Terence Langendoen, Principal Investigator.

Linguistic Society of America
1325 18th Street, N.W., Suite 211
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December 1987

PREFACE

The Linguistics in the Undergraduate Curriculum (LUC) project is an effort by the Linguistic Society of America (LSA) to study the state of undergraduate instruction in linguistics in the United States and Canada and to suggest directions for its future development. It was supported by a grant from the National Endowment for the Humanities during the period 1 January 1985-31 December 1987. The project was carried out under the direction of D. Terence Langendoen, Principal Investigator, and Secretary-Treasurer of the LSA. Mary Niebuhr, Executive Assistant at the LSA office in Washington, DC, was responsible for the day-to-day administration of the project with the assistance of Nicole VandenHeuvel and Dana McDaniel.

Project oversight was provided by a Steering Committee that was appointed by the LSA Executive Committee in 1985. Its members were: Judith Aissen (University of California, Santa Cruz), Paul Angelis (Southern Illinois University), Victoria Fromkin (University of California, Los Angeles), Frank Heny, Robert Jeffers (Rutgers University), D. Terence Langendoen (Graduate Center of the City University of New York), Manjari Ohala (San Jose State University), Ellen Prince (University of Pennsylvania), and Arnold Zwicky (The Ohio State University and Stanford University). The Steering Committee, in turn, received help from a Consultant Panel, whose members were: Ed Battistella (University of Alabama, Birmingham), Byron Bender (University of Hawaii, Manoa), Garland Bills (University of New Mexico), Daniel Brink (Arizona State University), Ronald Butters (Duke University), Charles Cairns (Queens College of CUNY), Jean Casagrande (University of Florida), Nancy Dorian (Bryn Mawr College), Sheila Embleton (York University), Francine Frank (State University of New York, Albany), Robert Freidin (Princeton University), Jean Berko-Gleason (Boston University), Wayne Harbert (Cornell University), Alice Harris (Vanderbilt University), Jeffrey Heath, Michael Henderson (University of Kansas), Larry Hutchinson (University of Minnesota, Minneapolis), Ray Jackendoff (Brandeis University), Robert Johnson (Gallaudet College), Braj Kachru (University of Illinois, Urbana), Charles Kreidler (Georgetown University), William Ladusaw (University of California, Santa Cruz), Ilse Lehiste (The Ohio State University), David Lightfoot (University of Maryland), Donna Jo Napoli (Swarthmore College), Ronald Macaulay (Pitzer College), Geoffrey Pullum (University of California, Santa Cruz), Victor Raskin (Purdue University), Sanford Schane (University of California, San Diego), Carlota Smith (University of Texas, Austin), Roger Shuy (Georgetown University), and Jessica Wirth (University of Wisconsin, Milwaukee).

Introduction

This volume is an update of Dr. Frank Heny's "Directory of Undergraduate Linguistics in the United States," prepared in 1984. At that time, Dr. Heny gathered information from catalogues and departmental sources regarding undergraduate programs in linguistics at universities and colleges in the United States. Although Dr. Heny received some assistance from the University of Vermont and from Carleton College for the preparation of the directory, its distribution was limited by lack of funds and personnel. The directory was never published but was informally reproduced and circulated.

The present volume contains catalogue descriptions of linguistics courses taught at 127 institutions in the United States and Canada that offer a major or minor in linguistics at the undergraduate level. The information was provided by linguistics department chairs and program heads at the request of the LUC Project. The material was lightly edited, largely to condense it a little and to remove, for example, courses like "Independent Study." The entries appear in alphabetical order by the name of the institution. Each entry opens with a brief description of the institution's linguistics offerings and its degree requirements and continues with descriptions of the individual courses offered. Where possible, the division of the institution in which the linguistics department or program is housed is indicated. Although a few eligible institutions did not respond, we believe that this is the most complete listing of undergraduate linguistics courses ever compiled.

This material resides on 5 1/4" microcomputer diskettes. Individuals wishing to obtain this material in computer-readable form should contact the LSA Secretariat.

The LUC Project is indebted to Dr. Heny for collecting the information and for overseeing its input to computer files at the State University of New York at Albany. We especially thank Robin Stiles, who not only edited and input all the data, but who also contributed greatly to the solution of the many formatting problems that arose and to the fine tuning that automation always seems to require.

TABLE OF CONTENTS

Barnard College 1
Boston College 4
Boston Univesity 6
Brandeis University 9
Brigham Young University 12
Brooklyn College 15
Brown University 17
Bucknell University 20
California State University at Dominguez Hills 22
California State University at Fullerton 24
Carleton University 28
Central College of Iowa at Pella 31
Central Connecticut State University 34
Cleveland State University 35
College of William and Mary 38
Colorado College 40
Cornell University 42
Drew University 46
Duke University 47
Florida Atlantic University 49
Georgetown University 51
Hamilton College 55
Harvard University 56
Herbert H. Lehman 59
Illinois State University 61
Indiana State University 63
Indiana University 64
Iowa State University of Science & Technology 66
Louisiana State University 68
Macalester College 70
McGill University 76
Memorial University of Newfoundland 79
Miami University 83
Michigan State University 86
Montclair State College 89
Northeastern Illinois University 92
Northeastern University 95
Northern Illinois University 98
Northwesten University 100
Oakland University 104
The Ohio State University 108
Ohio University at Athens 112
Pennsylvania State University 115
Pomona and Pitzer Colleges 118
Princeton University 122
Purdue University 124
Queens College--City University of New York 126
Rice University 130
Rutgers University 133
San Diego State University 136
San Jose State University 140

Simon Frazer University 142
Sonoma State University 145
Southern Illinois University at Carbondale 147
Southern Illinois University at Edwardsville 150
Stanford University 151
State University of New York at Albany 156
State University of New York at Binghamton 158
State University of New York at Buffalo 164
State University of New York at Stoney Brook 167
Swarthmore College 170
Syracuse University 172
Temple University 175
University of Alabama at Birmingham 177
University of Alberta 179
University of Arizona 181
University of Arkansas 185
University of British Columbia 187
University of Calgary 190
University of California at Berkeley 193
University of California at Davis 196
University of California at Irvine 199
University of California at Los Angeles 204
University of California at Riverside 211
University of California at San Diego 213
University of California at Santa Barbara 217
University of California at Santa Cruz 221
University of Chicago 224
University of Colorado 227
University of Connecticut 230
University of Florida at Gainesville 231
University of Georgia 233
University of Hawaii at Hilo 235
University of Illinois at Chicago 237
University of Illinois at Urbana 239
University of Iowa 243
University of Kansas 246
University of Louisville 250
University of Maryland 252
University of Massachusetts at Amherst 255
University of Massachusetts at Boston 263
University of Michigan 265
University of Minnesota 269
University of Missouri at Columbia 273
University of Montana 276
University of Nevada at Las Vegas 279
University of Nevada at Reno 282
University of New Brunswick 284
University of New Hampshire 287
University of New Mexico 290
University of North Carolina at Chapel Hill 294
University of Oklahoma 297
University of Oregon 299
University of Ottawa 302
University of Pennsylvania 306

University of Pittsburgh	309
University of Rochester	313
University of Saskatchewan	316
University of Souther California	319
University of South Florida	322
University of Texas at Austin	324
University of Texas at El Paso	327
University of Toledo	329
University of Toronto	331
University of Utah	336
University of Victoria	339
University of Virginia	343
University of Washington	345
University of Western Ontario	348
University of Wisconsin at Madison	350
University of Wisconsin at Milwaukee	354
Vanderbilt University	359
Wayne State University	360
Western Michigan University	364
West Virginia University	367
Yale University	369
York University	373

BARNARD COLLEGE
LINGUISTICS DEPARTMENT

The study of linguistics develops understanding of the nature of language. The major is designed to provide the student with a broad appreciation of the fundamental problems of language analysis, some training in the techniques of linguistics research, as well as insight into the interrelations of linguistics with the other social and communication sciences, the humanities, and philosophy and mathematics.

MAJOR REQUIREMENTS

Majors in Linguistics may choose among four major course programs: the general major, Language Sciences, Linguistics and Literature, and Anthropological Linguistics. Each program consists of a minimum of eleven courses, including V1101, V3901, W4108, W4204, W4500.

Students are also encouraged to take Philosophy V3415 (Formal Logic), as well as appropriate courses in ancient and modern languages. Students enrolled in the general major program are required to take six further courses. The Language Sciences, Linguistics and Literature, and Anthropological Linguistics major programs offer courses of study relating the contemporary study of language to other closely related fields in the sciences, social sciences and humanities.

Language Sciences

The study of language in its philosophical, psychological and computational setting. The major consists of a minimum of six of the following courses, of which at least two must be in linguistics: W4502, W4600, W4602, W4702, Psychology BC3160 (Cognitive Psychology), Psychology BC3164 (Language and Perception), Psychology W1505 (Communication Behavior: the Psychology and Structure of Language), Psychology W3180 (Language and Communication), Philosophy V3483 (Theory of Meaning), Computer Science W3261 (Computability and Formal Language), Computer Science W4705 (Natural Language Processing).

Linguistics and Literature

The role of linguistics in the analysis of literary language in the widest sense: prized types of language in literate and pre-literate societies (e.g., belles lettres and folklore); translation; versification; registers (e.g., journalese, legal language). The major consists of at least six courses to be selected in consultation with the adviser, drawn from the following categories:

1. Linguistics courses, V3419, V3412, V3414 and Columbia courses subject to availability; e.g., W4004 (Linguistics and the Verbal Arts).

2. Language and literature courses, to be chosen in consultation with faculty members of the Language and Literature departments.

3. Other courses relevant to the major; for example, Anthropology V3404 (Ethnolinguistics), Philosophy V3850 (Concept of Literature).

Anthropological Linguistics

The study of language in culture and society. The major consists of at least six courses to include Anthropology V3033 (Sociolinguistics), Anthropology V3034 (Ethnolinguistics), and four other relevant courses to be selected in consultation with the adviser; e.g., Anthropology V3020 (Men's and Women's Speech), Anthropology V3044 (Symbolism), Linguistics V3414 (Linguistics and the Structure of Texts), Psychology W1505 (Communication Behavior: the Psychology and Structure of Language).

MINOR REQUIREMENTS

Students minoring in Linguistics must take five courses in the department, including V1101.

COURSE DESCRIPTIONS

V1101 Introduction to Linguistics Nature of language; characteristics of phonological and grammatical systems and the lexicon; evolution of language; role of linguistics in related disciplines; modern techniques of linguistic analysis.

V3410 The Science of Linguistics and the Art of Translation Linguistic patterns and the application of linguistic techniques in both the process of translation and the comparison of original and translated versions of a text. Texts include literary, Biblical, and journalistic material in bi- or multi-lingual versions, and students will use materials in languages familiar to them for analysis and translation. Prerequisite: V1101.

V3412 Linguistics and the Translation of Poetic Language Linguistics as a tool in the translation of poems and other kinds of text whose structure depends on phonetic and phonological patterns. Recent developments in linguistics (e.g., by Paul Kiparsky) relevant to the analysis of rhyme, meter, parallelism, and other sound-based configurations. Materials include monolingual and bilingual texts (poems, proverbs, etc., in several languages), some chosen by the instructor and others by the students. Prerequisite: V1101.

V3414 Linguistics and the Structure of Texts Application of linguistics techniques for elucidation of meaning and structure in various types of texts, especially poetry and prose. Modern techniques and traditional methods. Texts used for illustration and analysis will be in various languages. Prerequisite: V1101.

V3901 Seminar in Linguistics

W4108 Principles of Historical Linguistics Prerequisite: V1101

ANT V3034 Ethnolinguistics

ANT V3033 Sociolinguistics

ANT G4322 Synchronic Linguistics

W4204 Introduction to Phonology Basic concepts and issues in phonological theory; development of the phonemic and morphophonemic levels of representation. Prerequisite: V1101.

W4500 Generative Syntax Principles and analytic techniques of generative syntax; formal and substantive aspects of transformations, base, lexicon, and semantic interpretation; generative syntax and generative semantics. Prerequisite: V1101.

W4600 Transformational Grammar Development of contemporary thought in theoretical linguistics, focusing on syntactic analysis. Topics include the Standard and Extended Theories; the structure of the lexicon, trace theory, Government-Binding framework. Prerequisite: W4500.

W4602 Issues in Semantics Determination of meaning by properties of grammatical form. Issues to be discussed include relation of syntactic and argument structure, anaphora, scope of quantification. Prerequisite: W4500.

W4702 Linguistic Theories as Psychological Theories Foundations and consequences of taking linguistics as a branch of cognitive psychology. Discussion of the philosophical basis of this perspective, and its effect on research in linguistics and psychology. Prerequisite: W4602 or W4600.

BOSTON COLLEGE
LINGUISTICS PROGRAM
DEPT. OF SLAVIC AND EASTERN LANGUAGES.

MAJOR REQUIREMENTS

Students majoring in Linguistics build their programs around a specific area of concentration, the most common of which is Philology. The following listing represents the normal program for this concentration.

a. General Linguistics (Sl 311/En 527);

b. five courses of a philological nature;

c. three linguistics "topics" courses;

d. three courses of a language-related nature from non-language departments;

The Department expects students concentrating in Philology to have proficiency in at least one classical and one modern language and to acquire a familiarity with at least two additional language areas.

The Department can provide requirements for other concentrations upon request.

The focus of the linguistics program does not lie in the simple acquisition of language skills, but rather in the analysis of linguistic phenomena with a view toward learning to make significant generalizations about the nature of language.

COURSE DESCRIPTIONS

Sl 216(EN552) Poetic Theory Traditional and contemporary theories of prosody and metre will be described and analyzed within the framework of modern structural and generative approaches to language as well as from the viewpoint of formalism.

Sl 221(Th 198) The Language of Liturgy The application of structural techniques to an analysis of liturgical form both in the poetic-religious context of the language of worship.

Sl 233(En 571) Applied English Grammar and Style

Sl 238 The Languages of Programming A complete course in the fundamentals of computer programming from a linguistic perspective. The course provides a complete coverage, with exercises, of the logical, mathematical, and operational concepts that underlie modern computing.

SL 311(EN 527) General Linguistics Introduction to the history and techniques in the scientific study of language in its structures and operations.

Sl 316 Old Church Slavonic The origins and development of the slavic languages; the linguistic structure of Old Church Slavonic and its relation to modern slavic languages.

Sl 317 Old Russian Study of the grammar and philology of Old Russian and early East Slavic; readings in Russian secular and religious texts from the Kievan period through the 17th century.

Sl 325(En 528) Historical Linguistics The phenomenon of language change and of languages, dialects, and linguistic affinities, examined through the methods of comparative linguistics and internal reconstruction.

Sl 327 Sanskrit The grammar of the classical language of India; introductory study of comparative Indo-Iranian linguistics.

Sl 328 Classical Armenian A grammatical analysis of Armenian grabar, the classical literary language current from the fifth century A.D.

SL 343(En 512) Old Irish A descriptive and historical examination of the linguistic features of Old Irish among the Celtic and Indo-European languages.

Sl 344 Syntax and Semantics Introduction to the concepts and operations of modern transformational-generative grammar and related models.

BOSTON UNIVERSITY
LINGUISTICS PROGRAM
COLLEGE OF LIBERAL ARTS

The subconcentration in linguistics (i.e. Minor) enables students with related majors to combine courses from a variety of disciplines into a cohesive program that focuses on the analysis and description of the structure of natural languages.

MINOR REQUIREMENTS (SUBCONCENTRATION)

1. CLA EN 511 (Introduction to Linguistics) and any seven of the courses listed below.

Students are urged to continue the study of any foreign language they have already begun and to begin the study of at least one other foreign language. If they have not already studied a classical language, they are advised to do so.

COURSE DESCRIPTIONS

General Linguistics

CLA LL 411 Introduction to Syntax

CLA LL 412 Introduction to Phonology

SAR SA 521 Phonetics

SED RL 725 Discourse, Narrative and Literacy

SED RL 751 Universals of Language

SED RL 755 Introduction to Transformational Grammar

SED RL 756 Semantics

SED RL 757 Sociolinguistics

SED RL Pragmatics

Anthropological Linguistics

CLA AN 351 Language, Culture and Society

CLA AN 523 Historical Linguistics I

CLA AN 535 Ethnopoetics

Analyses of Particular Languages

CLA EN 513 Modern English Grammar

CLA LD 491 African Languages and Linguistics

CLA LF 502 The Structure of French: Syntax

CLA LF 503 Structure of French Phonology

CLA LS 310 Spanish Phonetics and Phonology

CLA LS 311 Structure of the Spanish Language

CLA LR 405 A Linguistics Introduction to Russian

CLA LL 482 Structure of Creole Languages

CLA LS 505 Topics in Linguistics: Spanish

Histories of Particular Languages

CLA EN 515, 516 History of English

CLA LF 504 History of French

CLA LS 500 History of Spanish

CLA LL 500 History of Romance Linguistics

Psycholinguistics

CLA PS 545 Language Development

SED RL 560 Language Acquisition: Introduction

SED RL 750 Cognitive Development and Language

SED RL 752 Individual Patterns of Language Development

SED RL 753 Studies in Language Acquisition

SED RL 754 Psycholinguistic Research Methods

Applied Linguistics

CLA EN 518 Linguistic Problems in TESOL

CLA LS 410 Applied Linguistics: Spanish

Other Related Courses

CLA LL 253 Language and Literature

CLA PH 107 Logic and Language

CLA PH 536 Philosophy of Language

SPC MC 436 Semantics

CLA CS 593 Natural Language Processing

SED RL 510 Language and Literature

BRANDEIS UNIVERSITY
LINGUISTICS PROGRAM

The concentration (i.e. Major) in linguistics is designed to give students a foundation in the theory of language. It emphasizes the approach of transformational generative grammar, which attempts to describe what it is that one knows when one knows how to speak a language. In the last fifteen years, this approach to the study of language has had a profound influence on fields as diverse as philosophy, psychology and anthropology, as well as on the linguist's traditional concerns with modern and classical languages and with linguistic universals.

MAJOR REQUIREMENTS

Nine semester courses are required for all candidates:

a. 100a, 110a 120b;

b. Two additional linguistics courses numbered above 100a but below 140;

c. Three additional linguistics courses to be chosen from the remaining linguistics courses and/or the list of electives below;

d. One advanced language course from the following list: FRE 106b, GER 106b, HEB 105a, RUS 106b, SPAN 105b, 106b.

COURSE DESCRIPTIONS

90BR Grammar A nontheoretical introduction to the structure of English words and sentences. Classical roots of English vocabulary: word analysis, base forms and rules of allomorphy. Basic concepts of grammar: categories (noun, adjective, adverb, etc.), functions (subject, object, modifier, etc.), phrases and clauses of various types. The course is designed to encourage understanding of grammatical descriptions of the traditional kind. We will draw primarily from English, but will also include material from other languages, especially Romance and Germanic languages, to illustrate such common grammatical phenomena as casemarking. Additional topics will include the relationship between written and spoken language, dialect variation and language history.

100a,AR Introduction to Linguistics A general introduction to linguistic theory and the principles of linguistics analysis. The central topic of the course is what speakers know about their language, syntax, semantics, and phonetics and phonology. In each case area students will construct detailed analyses of data from English and from other languages, and examine their implications for a theory of language. Additional topics such as historical linguistics and the psychological implications of linguistic theory will be covered as time allows.

110a Introduction to Phonology This course is an introduction to Generative Phonology which is a theory of natural language sound systems. It begins with a review of articulatory phonetics, followed by distinctive feature theory and the concept of a "natural class." The central section covers morphology and the nature of morphophonemics, and universal properties of the rules that relate morphophonemic and phonetic representations. The course ends with discussion of a special topic such as with discussion of a special topic such as syllable structure or word-formation.

112BR Introduction to Historical Linguistics Prerequisite: 100a.

120b Syntactic Theory Prerequisite: 100a. This course extends the syntactic framework developed in the introductory course through the study of such problems as the complement system and constraints on transformations, with emphasis on their relevance to universal grammar.

122b Investigations in an Unfamiliar Language

125b Advanced Syntactic Theory Prerequisite: 120b. Recent developments in syntax, including such topics as constraints on rules, trace theory, government and binding, and lexical-functional grammar.

130AR Semantics This course explores the semantic structure of language in terms of current linguistic theory. Topics to be covered include the nature of semantic representation, functional structure, presupposition, and reference.

135AR Linguistics and the Romance Languages

140a History of the English Language

150b Introduction to Cognitive Science The idea of "mental representation" is central to cognitive science, and this course explores this idea from a number of perspectives. Representation evoked during visual perception, during language comprehension and production, during musical perception, and during reasoning are examined, as are the nature of "concepts" and the role of genetic predisposition in mental representations. The methods of cognitive science are also reviewed, with an emphasis on the interdisciplinary nature of the field.

173AR Psycholinguistics An introduction to modern psycholinguistics with an emphasis on language comprehension and production. Questions concerning species-specificity and the neurological organization of language are included for consideration.

194b Language and Mind

197a Language Acquisition and Development Prerequisite: UPSYC 1a or ULING 100a. When a child knows a language he or she has successfully constructed a grammar of it: in the course of constructing the grammar the child must form hypotheses about the language and test them against the available data. The central problem of language acquisition is to explain what makes this formidable task possible. In the course we will study and evaluate theories of language acquisition in this light, basing our conclusions on recent research in the development of syntax, semantics and phonology.

BRIGHAM YOUNG UNIVERSITY
LINGUISTICS DEPARTMENT
COLLEGE OF HUMANITIES

Departmental Programs provide course work in principles of language, theory of language, language universals, language acquisition, and computational linguistics. Options allow students to pursue a traditional track or more specialized training in language acquisition or computer applications to language.

The B.A. serves as a necessary background for such advanced studies in language as computer processing of natural languages and also provides strong undergraduate preparation for graduate and professional schools.

MAJOR REQUIREMENTS

1. Required courses: LIN 230 (to be taken first semester of program) 330, 360, 430, 450, 490, either 520 or 521, 540, and 550.
2. 12 hours of departmentally approved combinations of electives selected from LIN 365, 431, 465R, 480, 520, 535, 551; ENG 326, 329; GERM 422; LATIN 621; LIS 538; MATH 502, 508; PHIL 316; PSYCH 376; SPAN 425, 521.
3. Achieve at least a 301-level proficiency in a foreign language.
4. The major requires at least 38 hours.

MINOR REQUIREMENTS

1. Required courses: LIN 230, 330, 450.
2. 6 hours of electives selected from other Linguistics Department course work in consultation with department adviser.

COURSE DESCRIPTIONS

101R Study of an Uncommon Language

102R Study of an Uncommon Language Prerequisite: 101R.

201R Second-Year Study of an Uncommon Language Prerequisite: 101R and 102R.

211R Second-Year Study of an Uncommon Language Prerequisite: 201R.

230 Language in Our Lives The many ways language affects our lives: its ancestry, acquisition, variations and usage.

301R Third-Year Study of an Uncommon Language

311R Third-Year Study of an Uncommon Language Prerequisite: 211R.

330 Introduction to Linguistics Basic understanding of linguistic systems. Morphology, syntax, and phonology.

360 Language and Computers 1 Computer uses in processing language: word processing, programming microcomputers, translation.

361 Language and Computers 2 Specific problems in linguistics; research in psycholinguistics, sociolinguistics, historical linguistics. Prerequisite: 360.

365 Humanities Computing Computer processing of language texts: text entry and editing.

430 Transformational Grammar Prerequisite: 330 or ENG 328.

431 Junction Grammar Advanced study of English syntax using Lytle's theory of semanto-syntactic structure.

450 Introduction to Historical-Comparative Linguistics Theory and method of language change via comparison of daughter languages and reconstruction of their ancestral language. Prerequisite: 330.

465 Humanities Programming Writing algorithms for humanities and linguistic applications. Prerequisite: 365, CS 142.

480 Problems in Translation History, theory and practice of human or machine translation. Prerequisite: proficiency in a second language.

520 Phonetics General inventory of speech sounds possible in language, both from an acoustic and articulatory point of view. Prerequisite: 330.

521 Phonology Discriminative values of speech sounds: their function in the communicative process. Prerequisite: 330.

525 Phonology of Modern English Prerequisite: 330 or ENG 328.

531 Grammar Usage

535 Semantics Theory and practice of semantic analysis. Prerequisite: 330.

540 Language Acquisition Prerequisite: 330.

550 Sociolinguistics Research and theory in anthropological linguistics and sociolinguistics.

551 Anthropological Linguistics Language in culture and society; development, typology, and description.

BROOKLYN COLLEGE
LINGUISTICS PROGRAM
ENGLISH DEPARTMENT
SCHOOL OF LIBERAL ARTS AND SCIENCES

The Linguistics Program offers a major in linguistics , a minor in linguistics, and a dual major in linguistics and a related discipline

MAJOR REQUIREMENTS

Program requirements (27-49 credits); Students must complete parts 1 through 5.

1. Linguistics 1 or Anthropology 2.3.
2. All of the following: Anthropology 17, Speech 13, Linguistics 84.1 [84.2].
3. Two of the following: Linguistics 21, 22, 23.
4. One advanced foreign language course chosen from the following: Greek 90, Latin 90, Chinese 11.1, French 11.1, German 11.1, Hebrew 11.1, Italian 11.1, Russian 11.1, Spanish 11.1, plus any prerequisite of the course. Another advanced foreign language course may be substituted with permission of the Linguistics Program director.
5. Two of the following: Anthropology 19, Computer and Information Science 24, 29, 32, 38, 39, 45, English 24.1, 24.2, 24.3, 24.4, 24.5, 24.6, Mathematics 51.1, 52, 56, Philosophy 13, 19, 33, 34, 55, Psychology 22, 58.1, 58.3, 59.1, Puerto Rican Studies 43, Sociology 77.2, Speech 17.6, 17.7, 31, plus any prerequisite of the courses. Other courses, particularly appropriate honors seminars, may be substituted for either or both of the two courses with the permission of the Linguistics Program director.

DUAL MAJOR REQUIREMENTS

Program requirements (21-36 credits plus a major in an approved department; see part 6). Students must complete parts 1 through 7.

1. Linguistics 1 or Anthropology 2.3.
2. Speech 13.
3. Two of the following: Linguistics 21, 22, 23.
4. One advanced language course chosen from the following: English 24.1, 24.2, Greek 90, Chinesell.1, French 11.1, German 11.1, Hebrew 11.1, Italian 11.1, Russian 11.1, Spanish 11.1, plus any prerequisite of the course. If a foreign language is chosen, it may be the same as that in part 7.

5. Two of the following: Anthropology 17, [18.1], 19, Computer and Information Science 24, 29, 32, 38, 45, English 24.3, 24.4, 24.5, 24.6, Mathematics 51.1, 52, 56, Philosophy 13, 19, 33, 34, 55, Psychology 22, 58.1, 58.3, 59.1, Puerto Rican Studies 43, Sociology 77.2, Speech 17.6, 17.7, 31, plus any prerequisite of the courses. Other courses, particularly appropriate honors seminars, may be substituted for either or both of the two courses with the permission of the Linguistics Program director.

6. A major in a department of the college. The following majors are recommended for the dual major program: anthropology, classics, computer and information science, English, mathematics, modern languages and literatures, philosophy, psychology, sociology, and speech. Any other major must be approved by the Linguistics Program director.

7. Study of a classical or modern foreign language through course 4 or 4.1, or the equivalent; or proficiency in a classical or modern foreign language through course 4 or 4.1, or the equivalent. Proficiency is determined by the department offering the language.

MINOR REQUIREMENTS

A minimum of twelve credits of advanced electives in the Linguistics Program. Advanced linguistics courses in other departments may be used with the approval of the program director. Each course must be completed with a grade C or higher. Students should meet with the program director to plan a program suited to their interests and career plans.

COURSE DESCRIPTIONS

1 Introduction to Linguistics Nature and structure of human language in relation to other communication systems. Evolution and acquisition of language; dialects and styles; language and culture; speech and writing.

21 Phonology Analysis of the sound systems of natural languages. Phonetics and phonology. Relation of phonology to vocabulary and syntax.

22 Syntax Analysis of the sentence structure of natural languages. Sentence and discourse. Relation of syntax to semantics and phonology.

23 Semantics Analysis of the meaning of words and sentences. Relation of semantics to vocabulary, syntax, and discourse.

BROWN UNIVERSITY
LINGUISTICS PROGRAM
DEPT. OF COGNITIVE AND LINGUISTIC. ST.

Linguistics at Brown University is taught in the Department of Cognitive and Linguistic Sciences.

Linguistics is at the crossroads of many fields of inquiry. The concentration in linguistics is designed both for students interested in the discipline itself and also for those wishing to use their understanding of language to pursue other disciplines. Linguists are concerned with such issues as what all human languages have in common, why languages change and how our linguistic abilities interact with our cognitive abilities. Fields as diverse as anthropology, literary criticism, semiotics and language pathology rely heavily upon methods and models developed in linguistics. The analytic and communicative skills necessary in the field of law, medicine, journalism, social services and advertising are fostered by understanding the structures and meanings of which human language is composed.

MAJOR REQUIREMENTS

The concentration in Linguistics consists of a minimum of eight courses, including:

1. Core Component:

    a. 22,

    b. an introductory course in phonology (121 or 122),

    c. an introductory course in syntax (131),

    d. two or more courses in Linguistics above the 100 level;

2. Individual Component: A minimum of three more courses in linguistics or appropriately related disciplines, of which no more than two may be courses below the 100 level. Students may focus on theoretical linguistics, language and speech, language and society, psycholinguistics, language and philosophy, individual languages (modern or classical), or language and literature, to list just some of the possibilities.

COURSE DESCRIPTIONS

3 Language And Languages The course will look at the ways in which languages vary and change through time. It will also examine misconceptions about language and at the same time acquaint students with some characteristics of a variety of languages, highlighting the diversity among languages of the world. It also examines dialect differences, the interaction of the structure and function of language, and unusual variants of languages such

as ritualistic and secret languages.

22 Introduction to Linguistic Theory An introduction to the basic principles governing the structure of language, and to theoretical issues concerning these principles. Primary emphasis will be on three main areas: Phonology(the study of sound systems); Syntax and Semantics: and Historical Linguistics(the study of how languages change over time). Will develop skills in analyzing linguistic data, and in understanding the theoretical implications of the data.

32 The Biology and Evolution of Language Data from anatomy, neurophysiology, physiology, and behavioral biology will be integrated using a Darwinian model of evolution. Human language is the result of evolutionary compromises. The discontinuity between the organs of human language and the analogous organs in related species is not as great as it has been assumed. The properties of human speech, the acquisition of language by children, models of the brain, the fossil record, and the anatomy and human speech, syntax, and cognitive behavior.

111 Introduction to Semantics The course will address various classical approaches to meaning, mainly from the point of view of modern linguistics, but also with attention to related discipline (such as philosophy or psychology). Special emphasis will be put on the discussion of merits and limits of truth conditional semantics (developed within the tradition of logic) as applied to natural languages. Arguments that will also be covered include the relation of semantics to pragmatics and speech act theory, and the relation between syntax and semantics. Prerequisite: 22.

113 Formal Semantics These courses will introduce basic concepts of logic and model theory as they relate to linguistic semantics. Detailed examination of specific proposals with special attention to those developed within the framework of Montague Grammar. Prerequisite: 111.

121 Phonetics and Phonology Introduction to articulatory phonetics, with laboratory practice in phonetic transcription: phonological distinctiveness and redundancy, including the nature of the phonemic principle and problems in phonological analysis: brief attention to acoustic phonetics and feature systems. Prerequisite: 22.

122 Introduction to Phonological Theory Prerequisite: 22.

123 The Production, Perception, and Analysis of Speech An introduction to the basis of the acoustic analysis of speech, the anatomy and physiology of speech production, and the perception of speech. Quantitative computer-implemented methods for speech analysis will be discussed and demonstrated. Linguistic and cognitive theories will be discussed in relation to the probable neural mechanisms and anatomy that make human speech possible.

131 Introduction to Syntax The focus of the course is primarily on the syntax of English as a means of illustrating the structured nature of a grammatical system, but the broader question at issue is: What is the nature of the rule system in natural language syntax? Prerequisite: 22.

136 Topics in Syntax Current issues in syntactic theory, including the role of phrase structure rules and lexical rules; the status of grammatical relations, and the interaction of syntax and semantics. Will focus on recent theories which greatly reduce and/or eliminate the role of transformations by "enriching" other components of the grammar.

141 Psycholinguistics: Introduction Survey of approaches to the nature of language processing. Topics include biological and neurological prerequisites for language, speech perception, syntactic and lexical processing, aphasia, and child language. Prerequisite: 11, 22, or Psych 1.

148 Language and the Brain Introduction to the study of neurolinguistics - the study of the relation between brain organization and language behavior. Topics include aphasia from a clinical, neurological, and linguistics perspective, split-brain patients, and laterality of brain function. Prerequisite: 11, 22, 32, Neuro 1, 2, Psych 1.

165 Historical and Comparative Linguistics Introduction to the study of historical linguistics. Topics include: types of sound changes; the causes of change. Will focus on the relation between historical linguistics and linguistic theory from the models of the neogrammarians through structuralism to generative grammar. Prerequisite: 22.

170 Introduction to Computational Linguistics Computer processing and analysis of language data; design and operation of digital computers and the structure of programming languages; discussion of linguistic theory and concrete programming problems in the area of diachronic linguistics, communication theory, generative grammar, machine translation, ATN parsing, and stylistic analysis.

BUCKNELL UNIVERSITY
LINGUISTICS PROGRAM
DEPT. OF MODERN LANGUAGES

A major in linguistics consists of eight courses in the program. These must include LN 105 or 110, 205, 210, 215, and a seminar or independent study course to be taken during the senior year.

Majors are expected to complete at least one 200-level course in a foreign language. They are encouraged to take courses in the structure or history of specific languages (FR 342, FR 344, GR 342, GR 344, RU 340, SP 340, EN 295, EN 296) and appropriate courses in psychology (PY 100, 101, 204, 207) and in sociology (SO 100, 109). Students should consult with their advisers to plan a balanced curriculum.

Interdepartmental majors including linguistics and related disciplines are encouraged. Guidelines and suggestions are available from the program director.

A minor in linguistics consists of five courses taught in the linguistics program.

COURSE DESCRIPTIONS

105 Linguistic Analysis: Sounds and Words (I or II) One semester of a two-semester introduction to linguistics. Topics Include: phonetics, phonology, word forms, language change and acquisition.

110 Linguistic Analysis: Sentences and Dialects (I or II) One semester of a two-semester introduction to linguistics. Topics include: Syntax, semantics, language variation, language and society.

150 Languages of the World Survey of the world's languages by continent and nation. Does not count toward a major in linguistics.

205 Phonetics and Phonology Description, pronunciation, and transcription of human speech sounds. Patterns and functions of these sounds in language. Prerequisite: LN 105 or 110.

210 Morphology and Lexicology The derivation (lexicology) and use of "words" in sentences (morphology). Prerequisite LN 105 or 110.

215 Syntax and Semantics Contemporary generative theories of phrase structure and its relation to meaning. Prerequisite: LN 105 or 110.

220 Historical Linguistics Change and growth in natural languages. Methods of comparative reconstruction.

230 American Dialects Description of regional and social dialects in the U.S. with emphasis on methods of dialect fieldwork.

235 Sociolinguistics The study of language in social context: correlational patterns between linguistic features and social parameters, such as class, age , sex, and ethnicity.

240 Bilingualism This course investigates the nature of bilingualism and its effect on the linguistic, psychological, and social behavior of speakers.

241 Teaching Foreign Language Prerequisite: LN 105.

295 Topics in Linguistics Prerequisite: LN 105.

395 Seminar in Linguistics

CALIFORNIA STATE UNIVERSITY AT DOMINGUEZ HILLS
LINGUISTICS PROGRAM
ENGLISH DEPARTMENT
HUMANITIES AND FINE ARTS

Linguistics - the study of language - has been called "the most scientific of the humanities and the most humane of the sciences." It thus provides an excellent focus for the liberal arts and sciences, as well as a foundation for further study and application in such areas as language development, disorders, and remediation; elementary, secondary, and adult education; foreign languages and literatures; anthropology, philosophy, psychology and sociology. The Linguistics Program offers a series of courses and seminars designed to enable the student to pursue an in-depth investigation of language as a human characteristic and the foundation of all human interaction and culture. The range of courses also enables students to meet requirements for admission to academic and professional programs in general and applied linguistics.

MINOR REQUIREMENTS

Recommended: Lin 100 (Introduction to Language) or ENG/FRE/SPA 310 (The Study of Language).

UPPER DIVISION REQUIREMENTS (15 CREDITS)

1. ENG 311 Phonology
2. ENG 312 Morphology
3. ENG 314 Syntax
4. ENG 420 Linguistic Analysis
5. LIN 490 Seminar in Linguistics

COURSE DESCRIPTIONS

LIN 100 Introduction to Language An overview of current knowledge about human language: its structure and function, its cultural and social environment, and its universality.

LIN 294 Independent Study in a Foreign Language

ENG 310 The Study of Language Traditional and modern approaches to the study of language. Prerequisite: ENG 111.

ENG 311 Phonology The Phonetics of a variety of languages and the phonetic phenomena that occur in natural languages. Prerequisite: ENG 111.

ENG 312 Morphology Descriptive and historical analysis of the structure of words in English and other languages. Prerequisite: ENG 111.

ENG 314 English Syntax Prerequisite: ENG 111.

ENG 317 Sociolinguistics: Black English Prerequisite: ENG 111.

ENG 413 History of the English Language Prerequisite: ENG 111.

ENG 419 Psycholinguistics Prerequisite: ENG 111 and 311 or 314.

ENG 420 Linguistic Analysis Descriptive and formal analysis of phonological, syntactic, and/or historical data from a variety of human languages. Prerequisite: ENG 111 and 311 or 314.

LIN 490 Seminar in Linguistics

LIN 494 Independent Study in a Foreign Language

CALIFORNIA STATE UNIVERSITY AT FULLERTON
LINGUISTICS DEPARTMENT
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

Linguistics is the study of language. Like other rapidly developing fields, linguistics resists simple classification into one of the traditional categories of academic disciplines. As one of the humanities, linguistics is concerned with the historical development of a particular language or language family. As a social science, linguistics may be related to anthropology in describing language as part of culture; or it may be related to psychology, in describing language as a kind of human behavior. One branch of linguistics, phonetics, may be considered a natural science, related to the physical science of acoustics and the biological sciences of anatomy and physiology. As an applied science, linguistics has found many applications in fields as far apart as language pedagogy, speech therapy, and computer programming. Finally, linguistics may be considered a formal science in its own right, related to mathematics and logic.

Interdisciplinary aspects of this study are reflected in the organization of the program which offers a core of general linguistics courses and draws upon linguistically related courses in other departments.

The Bachelor of Arts is for students with an exceptional interest in and aptitude for the study of the systems of human communication. The essential relationships between language and thought and language and culture; the structure of foreign languages as well as English; the historical study of language and formal techniques are theoretical foundations of linguistic analysis.

MAJOR REQUIREMENTS

LANGUAGE REQUIREMENT

Two progressive semesters of any two languages or four progressive semesters of any one language.

LOWER-DIVISION REQUIREMENTS

Linguistics 106 Language and Linguistics (3); any one 200-level linguistics course (3).

UPPER-DIVISION REQUIREMENTS

Linguistics 351 Introduction to Linguistic Phonetics and Phonology (3).

Linguistics 406 Descriptive Linguistics (3).

Linguistics 412 Sociolinguistics (3).

Linguistics 430 Historical Linguistics (3).

Any 300- or 400-level linguistics course (3).

FOUR ELECTIVES

Two must be from the linguistics upper-division courses other than those listed as required above; and two may be in linguistics upper-division courses or

Education TE 312 Human Growth and Development (3)

English 303 The Structure of Modern English (3)

English 490 History of the English Language (3)

Foreign Languages, any upper-division course (3)

Mathematics 304 Mathematical Logic (3)

Mathematics 305 Elements of Set Theory (3)

Philosophy 368 First Course in Symbolic Logic (3)

Physics 405 Acoustics (4)

Psychology 415 Cognitive Processes (3)

Students must consult with an adviser in linguistics before establishing their individual programs of study.

MINOR REQUIREMENTS

The minor in linguistics provides a solid introduction to the scientific study of language for students in a related major field. Students are required to take: Linguistics 106, Linguistics 351, and Linguistics 406. In addition, 12 units in elective courses selected with the approval of the Undergraduate Adviser are required. It is thus possible to tailor the minor to individual needs in rounding out a course of study in the student's major area of specialization.

COURSE DESCRIPTIONS

105A English as a Second Language

105B English as a Second Language

106 Language and Linguistics The nature of language, its origin and development; language in culture, the structure of language and its writing and transcription.

108 Linguistics and Minority Dialects The sounds, meanings and vocabulary of Afro-American, Caribbean, and other English dialects and their historical origin.

230 Introduction to Semantics Introduction to the role of word and sentence meaning as analyzed by contemporary linguistic theories. Prerequisite to Ling 430.

251 Animal Language and Communication Animal linguistic behavior in comparison with human speech and its derivatives, and an exploration of experiments concerned with dolphins, chimps and other species.

254 Introduction to Paralanguage and Kinesics: Body Language The physical actions, gestures and changes in the physiognomy that occur together with language and paralanguage in human communication.

300 Language and Culture

301 Sanskrit Introduction into the devanagari script as well as the phonology, morphology and syntax of the Sanskrit language.

305 The English Language in America

351 Introduction to Linguistic Phonetics and Phonology The nature and structure of sound systems in language; a thorough investigation of the International Phonetics Alphabet as applied to many different languages.

354 Linguistics and Literature Language as a medium of literature; the new stylistics. Prerequisite: a course in linguistics or English linguistics.

375 Introduction to Philosophy of Language

402 Advanced Phonetics

403 Speech/Language Development

406 Descriptive Linguistics A study of the sounds (phonology), forms and meanings (morphology), and syntax of languages.

412 Sociolinguistics Social dialects in relation to the surrounding communities. Prerequisite: Ling 106 or equivalent.

416 Anthropological Linguistics

417 Psycholinguistics

430 Historical Linguistics The comparative method in diachronic linguistic methodology and theory, graphemics, glottochronology, language families, dialect geography and internal reconstruction. Prerequisite: 406 or equivalent.

443A Principles of Teaching English to Speakers of Other Languages

443B Principles of Teaching English to Speakers of Other Languages

492 Linguistic Fieldwork Prerequisites: Ling 106; 351 or 406.

CARLETON UNIVERSITY
LINGUISTICS DEPARTMENT
FACULTY OF ARTS

The Department of Linguistics offers a program leading to a Major in linguistics. The aim of this program is to provide the student with the theoretical and methodological bases and procedures for the analysis of language and languages, on both the descriptive and historical levels. In addition to the introductory course (Ling 29.100), there is a core of half-course credits dealing with special areas within linguistics, such as historical linguistics, semantics, psycholinguistics, sociolinguistics, language typology, language pedagogy, and speech science. Advanced courses deal with phonetics, phonology, grammar, linguistic theory and applied linguistics.

MAJOR REQUIREMENTS

Students majoring in linguistics must complete the following courses:

Linguistics 29.100, 29.301, 29.302, 29.303, 29.304, 29.381, plus three other credits in linguistics. In addition, all students must have a working knowledge of a modern language other than English, proficiency to be determined by successful completion of a university course in the language or by an oral or written test given by the department.

For major programs combining linguistics with another subject students must complete:

Linguistics 29.100, 29.301, 29.302, 29.303, 29.304, plus one further credit in linguistics.

COURSE DESCRIPTIONS

29.100 Introduction to Linguistics Elementary principles and methods of descriptive analysis of language; phonetics; phonology; morphology; syntax.

29.211 Historical Linguistics Principles and methods of the historical analysis of languages. Prerequisite: 29.100.

29.223 Linguistic Theory and Second-Language Learning Prerequisite: 29.100.

29.232 Semantics The study of meaning as part of the study of communication. Prerequisite: 29.100.

29.261 Psycholinguistics Language performance and language use; the production and perception of language. Prerequisite: 29.100.

29.264 Speech and Language Problems An examination of the congenital, developmental and acquired disorders of language, speech and voice; prevalences, types, causes and effects. Prerequisite: 29.261.

29.271 Sociolinguistics The place of language within society; bilingual and multilingual communities; language and social mobility and social stratification. Prerequisite: 29.100.

29.272 Language Typology The study of language typology as a classificatory device, universalist hypothesis, and areal features. Prerequisite: 29.100.

29.280 Language and Communication Among theories about the nature of language that the course examines are those of Skinner and Chomsky; and the speech of act theorists. Answers are attempted to questions: What is language? What is meaning? What is it to communicate? Prerequisite: second year-standing.

29.297 Writing Theory and Practice Prerequisite: second-year standing.

29.301 Phonetics Recognition, description, transcription and production of speech sounds; systems of transcription. Prerequisite: 29.100.

29.302 Phonology The sound-systems of languages; methods for the analysis and description of phonological structure. Prerequisite: 29.301.

29.303 Language Analysis Direction and practice in the analysis of grammatical material, including both morphology and syntax. Prerequisite: 29.100.

29.304 Grammatical Theory Comparison of major current schools of linguistics. Theories of grammatical structure. Prerequisite: 29.303.

29.381 Language Structure Intensive analysis of the linguistic structure of a selected language. Prerequisite: 29.100.

29.401 Advanced Phonology A continuation of 29.302. Prerequisite: 29.301, 29.302, 29303, 29.304.

29.402 Advanced Grammar A continuation of 29.304. Prerequisite: 29.301, 29.302, 29.303, 29.304.

29.409 Seminar in Current Issues in Linguistics Prerequisite: 29.301, 29.302, 29.303, 29.304.

29.421 Language Testing Prerequisite: 29.223 or enrollment in CTESL.

29.423 Analysis of Discourse Principles of discourse analysis and their application in problems in applied linguistics. Prerequisite: third- or fourth-year standing or enrollment in CTESL.

29.424 Teaching English as a Second Language: History and Theory Prerequisite: 29.100 or enrollment in CTESL.

29.425 Teaching English as a Second Language: Methodology Prerequisite: 29.223 or enrollment in CTESL.

29.461 Seminar in Experimental Linguistics Prerequisite: 29.301, 29.302, 29.303, 29.304.

29.462 Second-Language Acquisition Prerequisite: 29.261 or enrollment in CTESL.

29.485 Structures of English Prerequisite: 29.100 or enrollment in CTESL.

29.495 Research Seminar in English and Education Prerequisite: 29.485 or ENG 18.295 and 29.297.

CENTRAL COLLEGE OF IOWA AT PELLA
LINGUISTICS PROGRAM
ENGLISH DEPARTMENT

MAJOR REQUIREMENTS

Linguistics Major (75 quarter hours).

25 quarter hours in Linguistics courses such as

1. Cross-Cultural 311 Cross-Cultural Perception and Communication
2. ENG 330 Introduction to Linguistics
3. ENG 331 History of the Language
4. ENG 332 Advanced English Grammar
5. ENG 333 Phonetics and Phonemics
6. ENG 385 Teaching English as a Second Language
7. ENG 399, 499 Independent Study/Reading in Linguistics
8. ENG 399, 499 Independent Study/Field Methods in Linguistics
9. FRE Phonetics from the Paris Program

10 quarter hours approved by the director such as

1. PHI 120 Introduction to Philosophy
2. PHI 125 General Logic
3. PHI 220 Symbolic Logic
4. PHI 264 Philosophy of Language

5 quarter hours in Anthropology from

1. SOC 236 Minority Groups
2. ANTH 260 Introduction to Anthropology
3. ANTH 266 The North American Indians
4. ANTH 360 Cultural Anthropology

5 quarter hours in Psychology from the Education or Psychology Department.

20 quarter hours in Electives - (chosen in consultation with the director).

At least 10 quarter hours in a language (other than the native language) or a reading knowledge in a second language.

Communication Skills Endorsement: students are required to meet the skills criteria of the English Department.

RECOMMENDATIONS

A non-Indo-European language, such as the Mayan language, Japanese, Swahili or Hebrew, plus a course in computer science.

The student should learn about several languages so that the concepts of comparative linguistics become meaningful. He/she will become familiar not only with the field of language itself, but also with supporting disciplines such as psychology, philosophy, and anthropology.

Students wishing to focus their studies upon an area of specialization such as Teaching English as a Second Language, computer-assisted language analysis, missionary or field work, languages not conventionally taught in the college curriculum, anthropological linguistics or language and logic, are encouraged to consult early with the linguistics faculty on a plan of required and elective courses which meet such special needs.

MINOR REQUIREMENTS

30 quarter hours in linguistics. Typically, courses would include:

1. ENG 330 Introduction to Linguistics
2. ENG 331 History of the Language
3. ENG 332 Advanced English Grammar
4. ENG 385 Teaching English as a Second Language

COURSE DESCRIPTIONS

ENG 291I Field Methods in Linguistics

ENG 330 Introduction to Linguistics Presents the fundamentals of the science of linguistics; concepts of morphology, phonetics and phonemics.

ENG 331 History of the Language

ENG 332 Advanced English Grammar

ENG 333 Phonetics and Phonemics A detailed study of speech sounds, production mechanisms, and the structuring of sounds in language.

ENG 385 Teaching English as a Second Language

CENTRAL CONNECTICUT STATE UNIVERSITY
LINGUISTICS PROGRAM
ENGLISH DEPARTMENT
ARTS AND SCIENCES

MINOR REQUIREMENTS

21 credits as follows:

ENG 200, ENG 230, ENG 400, ENG 430, ENG 431.

Plus one of the following: 6 credits of a foreign language at the intermediate level or CS 271 and CS 285 or ED 106 and either ED 498 or ENG 490 (for independent study in manual sign systems).

COURSE DESCRIPTIONS

ENG 200 Descriptive Linguistics The structure and system of language with English as the subject of the analysis: history, phonology, morphology, syntax, semantics, usage.

ENG 230 The Study of Language General concepts of language as it is involved in thought, society, literature, and scientific analysis with emphasis on universal characteristics and relevance to contemporary English.

ENG 400 Descriptive Linguistics II Intensive analysis (syntactic, morphological, phonological) of selected data from English and other languages.

ENG 430 Studies in Linguistics and the English Language

ENG 431 The History of the English Language

CS 271 Introduction to Computer Science Prerequisite: Math 121 or 125 or placement test.

CS 285 Advanced Programming Concepts Prerequisite: CS 271 or Math 471, and Math 122 or 125.

SP ED 106 Basic Manual Communication II A continuation of the Manual Alphabet and American Sign Language of the Deaf designed to provide further skill in non-verbal communication.

CLEVELAND STATE UNIVERSITY
LINGUISTICS PROGRAM
DEPT. OF MODERN LANGUAGES
ARTS AND SCIENCES

The program in linguistics offers no courses under its own aegis, but draws its curriculum from courses already existing in the Departments of Anthropology, Communication, English, Modern Languages, Philosophy, Psychology, and Speech and Hearing. Both a major and a minor in linguistics are offered.

MAJOR REQUIREMENTS

1. Ten courses (40 hrs) distributed as follows: either ENG 311 or ANT/MLA 325 (4 hrs); one course in each of the Group B cores (12 hrs); six elective courses selected from Groups B and C (24 hrs).
2. Two language requirements: a foreign language course at the 200-level or above; at least four credits in an "uncommon language" (one not closely related to English).
3. Presentation of a senior project before graduation.

MINOR REQUIREMENTS

1. Six courses (24 hrs) distributed as follows: either ENG 311 or ANT/MLA 325 (4hrs); one course in each of the Group B cores (12hrs); two elective courses selected from Groups B and C (8 hrs).
2. Both language requirements described for majors.

COURSES

GROUP A: BASIC CORE

ANT 325 Introduction to Descriptive Linguistics

ENG 311 Introduction to English Linguistic

GROUP B: HISTORICAL CORE

ENG 315 History of English

ENG 425 Studies in Language and Linguistics

GROUP B: THEORETICAL CORE

COM 361 Rhetorical Theory

ENG 312 Modern English Grammar

ENG 425 Studies in Language and Linguistics

PHL 377 Philosophy and Language

GROUP B: APPLIED CORE

ANT 353 Linguistic Field Methods (6 credits)

ANT 472 Language, Culture and Change

ENG 425 Studies in Languages and Linguistics

MLA 436 Teaching English to Speakers of Other Languages

PSY 338 Psychology of Language

SPH 228 Phonetics

SPH 438 Seminar in Urban Language Patterns

GROUP C: ELECTIVES

COM 332 Interracial Communication

COM 445 Language and Thought in Communication

COM 492 Seminar in Communication

ENG 425 Studies in Language and Linguistics

ENG 431 Workshop in Rhetoric and Style

FRN 315 French Phonetics and Diction

FRN 434 Special Topics in French Linguistics

GER 415 Phonetics and Contrastive Structures (German)

MLA 310 Structure of Specific Languages

MLA 434 Special Topics in Linguistics

PHL 332 Symbolic Logic

PHL 432 Analytic and Linguistic Philosophy

PHL 433 Advanced Symbolic Logic

SPH 229 Speech and Language Development

SPH 331 Psychology of Speech and Hearing

SPH 485 Speech and Hearing Science

SPN 315 Spanish Phonetics

SPN 490 Special Topics in Spanish

COLLEGE OF WILLIAM AND MARY
LINGUISTICS PROGRAM
ENGLISH DEPARTMENT
FACULTY OF ARTS AND SCIENCES

INTERDISCIPLINARY LINGUISTICS MAJOR

A minimum of 30 credit hours selected by the student in consultation with an adviser on the Linguistics Committee. At least 24 of these credits must be chosen from among courses numbered 300 or higher. Each concentrator is normally expected to select courses in accordance with the following plan: (a) 18 credits consisting of English 210, 211 (Anthropology 211), 304, 405 (Anthropology 430), 406 (Anthropology 440), and 464 (which may be taken more than once with different topics, although all other courses under this heading must also be taken); (b) at least 3 credits from English 302 or 409, Philosophy 300, 301, 404, or 406 (Strongly recommended), Independent Study (either English 481 or Interdisciplinary 480), also strongly recommended, and Interdisciplinary Honors. The student may propose other courses in the College which make a coherent addition to the concentration program. In the recent past students have selected courses in Philosophy (366 and 442), Psychology (351, 362, 451, 452), Computer Science (442), and Speech (311).

MINOR REQUIREMENTS

The minor in Linguistics is through the Interdisciplinary English Department. The minor requires 18 credits in departmental linguistics (selected from English 210, 211, 302, 303, 304, 405, 406, 409, 464).

COURSE DESCRIPTIONS

210 Principles of Grammatical Analysis An introduction to the goals, issues, and methods of grammar, both traditional and modern.

211 The Study of Language An introduction to the scientific study of the elements of language, including sound and writing systems, grammatical approaches.

302 Language in America A study of the origin, development, and present state of American English, including American Indian.

303 History of the English Language

304 Generative Syntax This introduction to transformational-generative grammar investigates the structures and operations underlying sentences currently accepted by speakers of English.

405 Descriptive Linguistics A study of contemporary methods of linguistic analysis, with emphasis on data drawn from a wide variety of languages; in-depth analysis of a single language.

406 Social and Historical Linguistics A study of language-change and variation, with special attention paid to ways in which social variation in language influences the direction and progress of linguistic change.

COLORADO COLLEGE
LINGUISTICS PROGRAM
DEPT. OF ANTHROPOLOGY AND GEN. ST.

The linguistic minor is designed to introduce students to different aspects of the study of language function and linguistic science. The five compulsory courses include both analytic and functional approaches. We recommend that students take GS 208 as early in the sequence as possible. The writing component may be satisfied by GS 318, AN 250, PH 214 or GS 320 with the consent of the instructor.

MINOR REQUIREMENTS

CORE REQUIRED COURSES

1. GS 208 Introduction to Linguistics

2. GS 318 Meaning and Structure in Language

3. PH 214 Philosophy of Language

ONE OF THESE TWO

1. AN 250 Language and Culture

2. PH 214 Philosophy of Language

The fifth and sixth required courses may be selected from among the following group, which includes courses that explore closely related areas. A student wishing to undertake a project in an area not treated by existing courses may, with the consent of three faculty members involved in the minor, select GS 320 as the sixth course.

1. Any modern foreign language at the 200-level or higher or Classics 101, 102, or 111 and 112

2. AN 293 Afro American Folklore

3. ED 399-3 Secondary School Teaching: Foreign Languages

4. EN 302 History of the English Language

5. GS 212 Minds, Machines and Mammals

6. MA 221 Computer Science I or 222 Computer Science II

7. PH 108 Introduction to Logic

8. PH 211 Language, Literature, and Criticism

9. PY 223 Physiological Psychology

10. HU 105 (Cinema)

11. AN 170 Topics (only if topic is language acquisition)

12. GS 320 Independent Study

COURSE DESCRIPTIONS

GS 208 Introduction to Linguistic Science Modern concepts concerning the nature, structure and functioning of language.

AN 250 Language and Culture Examines the interrelationships of linguistic and cultural patterns and the use of linguistic evidence in the historical reconstruction of cultures.

AN 255 Language Acquisition Explores the way in which humans learn their native language.

GS 318 Meaning and Structure in Language Introduction to linguistic semantics and the relationship of the syntactic and semantic components of grammar.

CORNELL UNIVERSITY
DEPT. OF MODERN LANG. AND LINGUISTICS.
ARTS AND SCIENCES

The Department of Modern Languages and Linguistics offers courses in linguistics (the study of the structure of language) and elementary, intermediate, and advanced courses in the minor as well as the major languages of Europe and south, southeast, and east Asia. Students take these courses because they are interested in the area in which the language is spoken.

Linguistics, the systematic study of human speech, lies at the crossroads of the humanities and the social sciences, and much of its appeal derives from the special combination of intuition and rigor that the analysis of language demands. The interests of the members of the Department of Modern Languages and Linguistics span most of the major subfields of linguistics--phonetics and phonology, the study of speech sounds; syntax, the study of sentence structure; semantics, the study of meaning; historical linguistics, the study of language change in time; sociolinguistics, the study of language as a social and cultural artifact; and applied linguistics, which relates the results of linguistic research to problems of bilingual education, second-language learning, and similar practical concerns. In theory, the gulf between the study of language in general and the study of particular languages, such as Spanish or German, is very wide; in practice, however, the two are intimately connected, and a high proportion of the students who enroll in linguistics courses at Cornell owe their initial interest in the discipline to a period of exposure to a foreign language in college or high school.

There are two introductory course sequences in linguistics: 111-112, which stresses the relationship of linguistics to other disciplines in the humanities and social sciences, and 101-102, which is designed for language majors, linguistics majors, and others who think that they may wish to do further work in the subject. The Cornell Linguistic Circle, a student organization, sponsors weekly colloquia on linguistic topics; these meetings are open to the University public, and anyone wishing to learn more about linguistics is most welcome to attend.

THE MAJOR

The major in linguistics has two prerequisites: (1)completion of Linguistics 101-102, and (2)proficiency in one language other than English or qualification in two languages other that English, one of which must be non-Indo-European or non-European. Some students may be unable to attain qualification in a non-European language before entering the major, in which case the requirement may be completed after admission to the major.

Completion of the major requires:

1. Three of the following:

    a. Linguistics 301: Phonology I

    b. Linguistics 303: Syntax I

    c. Linguistics 309 or 310: Morphology

    d. a course in historical method, such as Linguistics 410, or the history of a specific language or family.

2. a course at or beyond the 300 level in the structure of English or some other language or a typological or comparative structure course such as Linguistics 401.

3. a minimum of 16 additional credits chosen in consultation with the adviser from:

    a. other linguistics courses

    b. courses in a non-European or non-Indo European language (not literature), provided that they have not been used for other requirements.

For other courses relevant to linguistics, see anthropology, psychology, human development and family studies, computer science, and philosophy.

COURSE DESCRIPTIONS

101-102 Theory and Practice of Linguistics Designed primarily for those who intend to major in a language or in general linguistics.

111 Themes in Linguistics Intended primarily for nonmajors.

113-114 Hispanic Bilingualism An introductory sociolinguistics course on the English language as used in Spanish-English bilingual communities.

118 Varieties of Human Language Language identification, literacy and multilingualism are among the issues touched on.

200 Traditional English Grammar for Foreign Language Students

201 Phonetics Emphasis on identifying, producing, and transcribing speech sounds.

202 Instrumental Phonetics Intermediate-level study of practical, experimental, and theoretical aspects of articulatory and acoustic phonetics.

244 Language and the Sexes

264 Language, Mind, and Brain

300 Multilingual Societies and Cultural Policy

301-302 Phonology I, II An introduction to contemporary phonology, which studies the system of rules and representations underlying the human ability to produce and understand speech.

303-304 Syntax I, II 303 is an introduction to syntactic theory, with emphasis on the classical theory of transformational grammar. 304 is an advanced course, surveying current syntactic models and dealing with such issues as the nature of syntactic representation, levels of representation, principles of universal grammar, and the relation of syntax and semantics.

306 Functional Syntax A general survey of syntactic theories that highlight grammatical function and reveal its role in discourse structure.

308 Dialectology

309-310 Morphology I, II Prerequisite: 101 or 111, 309 not required for 310.

311-312 The Structure of English Prerequisite: for 311, 102; for 312, 311.

313 English for Teachers of English A course in modern English for teachers of nonnative speakers.

314 Teaching English as a Foreign Language

316 Introduction to Mathematical Linguistics

318 Style and Language Prerequisite: 101.

321 History of the Romance Languages Prerequisite: Linguistics 101 and qualification in any Romance language.

323 Comparative Romance Linguistics Prerequisite: 101 and qualification in any Romance language.

341 India as a Linguistic Area Cross-family influences in an area of interaction over a long time span are considered. No knowledge of Indian languages is expected.

366 Spanish in the United States

400 Semiotics and Language Prerequisite: some background in linguistics, philosophy, psychology, anthropology, or literary theory.

401 Language Typology Study of a basic question of contemporary linguistics: in what ways do languages differ, and in what ways are they all alike? Efforts to characterize the total repertory of constructions available to natural languages. Common morphological devices and their syntactic correlates.

402 Languages in Contact Prerequisite: 101-102.

403 Introduction to Applied Linguistics Prerequisite: a course in the structure of a language at the 400 level.

404 Comparative Methodology Exemplification of the methods of comparative reconstruction of proto-languages selected from a variety of language families.

405-406 Sociolinguistics Social influences on linguistic behavior shifts in register, style, dialect, or language in different speech situations.

410 Introduction to Historical Linguistics A survey of the basic mechanisms of linguistic changes with examples from a variety of languages.

415-416 Social Functions of Language Prerequisite: 101 or 111.

417 History of the English Language

421 Linguistic Semantics Prerequisite: 303.

436 Language Development(also Psychology 436 and Human Development and Family Studies 436) A survey of basic literature on development. Major theoretical positions in the field are considered in the light of studies in first language acquisition of phonology, syntax, and semantics from infancy onward. The fundamental issue of relations between language and cognition will be discussed. The acquisition of communication systems in nonhuman species such as chimps, and problems of language pathology will also be addressed, but the main emphasis will be on normal language development in the child. Prerequisite: at least one course in cognitive psychology, cognitive development, or linguistics.

440 Dravidian Structures Prerequisite: 102.

442 Indo-Aryan Structures Prerequisite: 102.

DREW UNIVERSITY
LINGUISTICS PROGRAM
COLLEGE OF LIBERAL ARTS

Drawing on the offerings of several departments, interested students may complete a minor in linguistics. No major in linguistics is offered. The minor is under the direction of a Faculty Committee on Linguistics, one member of which serves as adviser to the minors.

MINOR REQUIREMENTS

For a formal minor in linguistics students must complete the following schedule of courses:

LING 100/General Linguistics

One of the following: LINGUISTICS 103, 105, 110, 115

Three foreign language courses, drawn either from the nonliterary curricula of the departments of classics, French, German-Russian, and Spanish or from the semitics courses offered in the Theological and Graduate Schools. These three courses must be arranged so that at least two language families or subfamilies are represented (Latin, French, and Spanish, e.g., would not satisfy the requirement, since all are Italic; but the substitution of German, Russian or Hebrew for any one of them would satisfy it). At least one of the three courses must be in advanced composition and conversation. If either of the other courses involves a lower level semester, a sequence of two courses must be taken.

One of the following: PHIL 121; MATH/PHIL 151.

COURSE DESCRIPTIONS

100 General Linguistics Descriptive and prescriptive linguistics. Phonetics and phonemics. Morphemics and syntagmology.

103 Indo-European Historical Linguistics An introduction to the linguistic study of the Indo-European family of languages.

105 The Structure of the English Language

110 Language and Culture Ethnolinguistics, psycholinguistics, and sociolinguistics. Culture as the super-structure of language. Linguistic criteria of social memberships.

115 Communication Theory The evolution of sense-organs. The comparative study of animal signaling systems. Pre-verbal and non-verbal communication.

DUKE UNIVERSITY
LINGUISTICS PROGRAM
ARTS AND SCIENCES

Students interested in the study of language as part of their undergraduate program or as preparation for graduate work in linguistics should consult the instructors of the courses listed below. Students may concentrate (concentrate = major) in linguistics through Program II.

COURSES

ANTHROPOLOGY

107 Introduction to Linguistics

112 Current Topics in Linguistics

116 Language, Ethnicity, and New Nations

118S The Language of Advertising

119 Language, Culture, and Society

211S Ethnography of Communication

ENGLISH

111 Introduction to Linguistics

112 English Historical Linguistics

115 Present-Day English

118S The Teaching of Composition, Grammar, and Literature in the Secondary School

119 Current Topics in Linguistics

208 History of the English Language

209 Present-Day English

FRENCH

120 Language, Computers, and Formal Intelligence

131S French in the New World

210 The Structure of French

211 History of the French Language

GERMAN

205, 206 Middle High German

216 History of the German Language

219 Applied Linguistics

INTERDISCIPLINARY COURSES

111 Introduction to Linguistics

119 Current Topics in Linguistics

PHILOSOPHY

103 Symbolic Logic

109 Philosophy of Language

250S Topics in Formal Philosophy

PSYCHOLOGY

134 Psychology of Language

220S Psycholinguistics

RUSSIAN

185S Introduction to Slavic Linguistics

186S History of the Russian Language

SPANISH

119S Structure of Spanish

210 History of the Spanish Language

FLORIDA ATLANTIC UNIVERSITY
DEPT. OF LANG. AND LINGUISTICS.
COLLEGE OF HUMANITIES

The Bachelor of Arts Degree in Languages and Linguistics provides students with a solid liberal arts education at the same time that it prepares them for entrance into several professions or for graduate study. The development of skills in language and linguistic analysis enables graduates to establish careers in teaching, commerce, and government service.

Students should begin the major and the second language in the first year.

MAJOR REQUIREMENTS

In addition to University and college requirements, undergraduate requirements for the major are:

12 credits: FRE/GER/ or SPN 4300, 4400, 4401 (native speakers should consult the Chairman of the Department of Languages and Linguistics concerning this requirement).

24 credits: For majors in French or German 3 courses in civilization and literature (FRW/GEW 4100, 4101, LIT 4604) and 3 courses in linguistics including LIN 4010 and at least 1 course in French or German linguistics. For majors in Spanish 3 courses in civilization and literature (SPW 4100, 4101, 4130) 3 courses in linguistics including LIN 4010, or at least 1 course in Spanish linguistics.

Grades below C in a required language skills course will not be counted toward fulfilling the requirements of the major.

COURSE DESCRIPTIONS

LIN 4010 Introduction to Linguistics Study of the nature of language, its origin and structure.

LIN 4417 Linguistics and Reading The application of linguistic knowledge to the teaching of reading.

TSL 4551 Problems in Teaching English as a Second Language

ENG 4574 Black English An introduction to the structure, history, and educational implications of Black English.

LIN 4620 Bilingualism Language and cognition, language acquisition in the bilingual child, bilingual influences upon learning.

LIN 4705 Psycholinguistics Psychology of language and communication: mechanics of language learning in relation to behavior and thinking.

FRE 4800 Structure of Modern French

FRE 4830 History and Dialectology of French

GER 4830 History and Dialectology of German

SPN 4840 History of the Spanish Language

SPN 4850 Structure of Modern Spanish

GER 4850 Structure of Modern German

GEORGETOWN UNIVERSITY
LINGUISTICS DEPARTMENT
SCHOOL OF LANG. AND LINGUISTICS.

Linguistics is the science which studies all aspects of language--the nature of man's ability to symbolize, the units of which language is composed, the ways in which these units are organized in different languages, dialect variations within a single language community, and the changes which occur over a period of time.

MAJOR REQUIREMENTS

Linguistics majors are required to take six semester courses covering basic linguistic theory, in preparation for more advanced work. Beyond these, students should select major electives from the many Linguistics courses offered each semester, with the advice of their faculty advisers.

Linguistics majors are also required to complete a minimum of eight semesters of one modern foreign language and demonstrate practical competence in that language. Completion of this language requirement also fulfills the minor concentration for a Linguistics major, although the student may minor in another subject as long as he also fulfills the language requirement.

MINOR REQUIREMENTS

Two minors are available through this department, one in Linguistics and one in Linguistics-Teacher Preparation. Students following the Linguistics Minor must take the following courses: Introduction to Language, two semester courses chosen from Phonetics and Phonology and Morphology and Syntax, and two Linguistics Electives.

Students following the Linguistics-Teacher Preparation Program must take Introduction, Foundations of Education, Methodology of Language Teaching (or Teaching of English as a Foreign language for those interested in teaching EFL), Language Testing, Principles of Secondary Education, and Student Teaching.

COURSE DESCRIPTIONS

THEORETICAL LINGUISTICS

001, 002 Introduction to Language Examination of the phenomenon of language and of ways to describe languages.

213, 214 Phonetics and Phonology Fall semester: (Phonetics) Study of the physiology of speech production, and training in phonetic transcription. Spring semester: (Phonology) Study of the methods of classical phonemics.

225, 226 Morphology and Syntax First semester: Study of the internal structure of words and the interrelationships among words. Second semester: Study of the internal structure of sentences and the interrelations among their components.

295 Language and Culture The interrelationship of language and culture seen from the point of view of linguistics and anthropology.

403, 404 Language Analysis and Description Methods o f describing the phonology and grammar of unknown languages. Prerequisite: 213-214, 225-226.

413, 414 Instrumental Phonetics Training in the techniques of palatography and sonagraphy for the analysis of speech. Prerequisite: 213-214.

431 Semantics Historical review of semantic studies; the interdependence of syntax and semantics.

441, 442 Comparative Indo-European Linguistics Reconstruction of Proto-Indo-European based on Sanskrit, Greek, Latin, Hittite, and other languages.

444 Old English

449 Historical Linguistics Study of language change and the methods for reconstructing unattested stages of a language.

482 Pragmatics The structure of communicative events. Development of contextual and functional theories of language and linguistic interaction.

APPLIED LINGUISTICS

051 Foundations of Education Structure of language teaching.

053 Principles and Techniques of Secondary Education: Urban and Suburban

054 Student Teaching

057, 058 Language Learning and Teaching

350 Language Testing The construction and use of foreign language tests.

351 Language Acquisition Focus on adult language acquisition.

353 Methodology of Bilingual Education

354 Bilingual Assessment

357 Methodology of Language Teaching

436 Linguistics and Translation History of translation theories. Linguistic models for translation: transformational, semantic, situational.

451 Bilingualism Survey of major theoretical issues about bilingualism from the disciplines of linguistics, psychology, sociology, and education.

454 Linguistics and Reading

455 Contrastive Analysis Techniques for comparing languages in order to discover and describe the differences.

471, 472 Introduction to Psycholinguistics The study of cognitive processes such as perception, storage of information and formulation of utterances underlying the use of language.

475 Psycholinguistics: Language Pathology An introduction to clinical linguistics, including both theoretical issues in neurolinguistic research as well as practical applications to the speech-language and hearing clinic.

476 Psycholinguistics: Children's Language Disorders Study of defective language development in children with various disorders including cerebral palsy, hearing impairment, mental retardation and childhood aphasia.

SOCIOLINGUISTICS

383 Introduction to Sociolinguistics Survey of topics on the influence of social factors on language.

481 Speech Act Theory

483 Discourse Analysis: Narrative

484 Discourse Analysis: Conversation

488 Sociology of Language Introductory survey of topics on the problems for society associated with linguistics diversity and language variation.

496 Cross-Cultural Communication Cultural influences on communication; description and analysis of cross-cultural interaction events; male-female differences.

COMPUTATIONAL LINGUISTICS

461 Computation and Linguistics I An introduction to the electronic digital computer and the preparation of linguistics statements for computational research.

462 Computation and Linguistics II Survey of existing systems for linguistic analysis in machine translation; structure of algorithms, dictionaries, grammars. Prerequisite: 461.

463 Artificial Intelligence Introduction to essential artificial intelligence concepts such as representation of information, search strategies, and effective procedures.

464 Automatic Processing of Language Data Introduction to the theory of automata. Computers as hardware devices for storing, processing and outputting the language symbols.

465 Automatic Parsing of Sentences Language and meaning. Basic units in message structuring.

HAMILTON COLLEGE
INDEPENDENT LINGUISTICS PROGRAM

Linguistics courses foster an understanding of such areas as communication, culture, folklore, language change, and human thought processes. The core of the Interdisciplinary Linguistics Program is described below.

COURSE DESCRIPTIONS

100F,S Introductory Linguistics A general examination of the study of language and the linguistic theories (Structuralism, Transformational Grammar) that have had the most pervasive influence on linguistic and cognate disciplines.

201S Semantics and Pragmatics An examination of meaning in language: reference, speech act theory, metaphor, deixis and conversational implicatures.

210W Phonetics and the Analysis of Speech Methodology of linguistic data collection and analysis.

242S Language, Self, and Society The use of language in social contexts. Attention paid to Black English, sexist speech, the construction of self in speech acts.

250F Folklore The linguistic perspective on oral performances such as personal narration, poetry composed as it is being performed, fairy tales, myths.

260S Language Change The change in language over time. Topics include the reconstructing and dating of dead languages. Prerequisite: 100.

301F Advanced Topics in Linguistic Theory Prerequisite: 100.

RELATED COURSES OFFERED IN OTHER DISCIPLINES:

ENG 446S History of the English Language

PHI 280F Philosophy of Language

PSY 290S Psychology of Language and Thought

HARVARD UNIVERSITY
LINGUISTICS DEPARTMENT
FACULTY OF ARTS AND SCIENCES

More than most academic disciplines, linguistics stands at the crossroads of the humanities and sciences, and much of its special appeal derives from the interplay of intuition and rigor which the analysis of human speech demands. Directly or indirectly, most current linguistic research is directed toward the goal of evolving an explicit theory of language; progress in this direction, however, can only be made on the basis of data from a wide range of individual languages, interpreted with the sensitivity and attention to detail of which the linguist is capable.

The bulk of the Department's course offerings lie in the areas of linguistic theory, descriptive linguistics, and historical linguistics. Linguistic theory seeks to characterize as precisely as possible the notion of grammar, a term technically used to refer to a system of internalized rules, some of which may be universal and others of which are peculiar to specific languages, whose function is to link sound with meaning. Since it is in practice impossible to divorce this study from the investigation of individual linguistic phenomena, the Department's elementary theory courses serve at the same time to introduce the basic techniques of linguistic analysis (descriptive linguistics), a field in which specialized instruction is available at a more advanced level. Historical linguistics, which examines the processes by which grammars change in time, is not only a subject of interest in its own right, but highly relevant to the study of current theoretical issues as well.

MAJOR REQUIREMENTS

The undergraduate program attempts to provide students with a grounding in each of the three main areas of study described above. Courses in linguistics must be complemented with courses in a combined field of the student's choice.

Basic concentration requirements: 6 1/2 full courses:

1. Required courses:

   a. 110 and 115.

   b. 112 or 120.

   c. Two additional half courses in Linguistics (other than 97hf, 98f, and 99)

   d. Four half courses in the combined field.

   e. Two additional half courses, which may be in Linguistics, the combined field, or a related field.

2. Tutorial:

   a. Sophomore year: 97hf required.

   b. Junior year: 98hf required.

3. General examination: Written general examination required of all concentrators at the end of the senior year.

4. Other information:

   a. Two years of language study in secondary school are required for admission to the concentration.

   b. All concentrators must demonstrate a knowledge of one foreign language by the end of the junior year.

MINOR REQUIREMENTS

Students may minor in Linguistics, combining this with a major in another field as a combined concentration. The Linguistics Minor requires a minimum of 4 half courses. Two of these 4 half courses must be chosen from 110, 112, 115, 120.

COURSE DESCRIPTIONS

104 Language and the Computer Introduction to computer processing of natural language; primarily intended for students in the humanities. Topics include morphological analysis, dictionary compilation and look-up, formal models of grammar, formal semantic representation, parsing, and prototype conversion algorithms from one formal language to another. No previous knowledge of computer programming required.

110 Introduction to Linguistics An introduction to contemporary linguistic theory and methods of linguistic analysis.

111 Descriptive Techniques The analysis of morphology. Study of data from a wide variety of languages. Prerequisite: An introductory course.

112 Transformational Syntax An introduction to syntactic theory emphasizing transformational grammar and its empirical basis. Evidence for phrase structural analyzes, motivation of transformational rules, rule interaction and ordering, constraints on rule application.

113 Intermediate Syntax Continuation of 112. Prerequisite: 112.

115 Introduction to Phonetics and Phonology An introduction to descriptive phonetics and phonological theory. Students will be expected to transcribe and analyze data from a wide variety of languages.

116 Semantics Studies models of semantic interpretation for formal theories of grammar. Introduction to basic principles of formal semantics for linguists.

117r Linguistic Field Methods Empirical method in linguistic description: the techniques of work with informants.

118 Introduction to Discourse Analysis An examination of various communicational principles that operate between the speaker/writer and the hearer/reader. Topics include: presupposition, point of view, discourse and sentence themes, discourse deletion, and reference and honorifics. Data will be drawn mostly from English, Russian, and Japanese.

119 Structure of Iroquoian

120 Introduction to Historical Linguistics

158r History of Irish From Indo-European to Old Irish: essentials of Celtic comparative and historical grammar.

160 The Native Languages of North America

161 Structure of Wiyot Description and study of an American Indian language formerly spoken in northern California. Prerequisite: Linguistics 160.

162 Structure of Malecite-Passamaquoddy Description and study of an American Indian language spoken in Maine and New Brunswick. Prerequisite: 160.

175 Structure of Japanese Prerequisite: 112.

HERBERT H. LEHMAN
INDEPENDENT LINGUISTICS PROGRAM

The Interdisciplinary Linguistics Program offers courses to prepare students (1) for graduate study in theoretical and applied linguistics and (2) for careers in linguistics research, the teaching of linguistics, and applied linguistics, such as lexicography and the teaching of English as a second language. The participating departments offer dually designated courses.

33-Credit Major in Linguistics, B.A. Students in this major shall arrange their program in consultation with the program coordinator.

COURSE DESCRIPTIONS

150 The Phenomena of Language The nature of language, its forms and uses. A core course in general linguistics which introduces the student to such areas as how language is acquired, sound and grammar systems, language change, and language families.

160 (SPV 246) Introduction to Linguistics Survey of linguistic science, with special attention to descriptive and applied linguistics.

185 (CMP 166) Introduction to Computer Programming Introduction to programming in a high-level language. Prerequisite: 2 1/2 years of high school math or MAT 036.

240 (SPE 301) Language and Communication The use of language, its influence on thought and behavior, and the techniques for overcoming common barriers and misunderstandings in communication. Prerequisite: SPE 100, 103, or 104.

245 (SPV 245) Articulatory Phonetics Fundamentals of articulatory phonetics; descriptive analysis of spoken forms of American English.

247 (SPV 247) Anatomy and Physiology of the Speech Mechanism

248 (SPV 248) Acoustic Phonetics Theoretical and experimental approaches to speech acoustics. The analysis and synthesis of the speech wave. Prerequisite: 245.

266 (PHI 230) Symbolic Logic Introduction to the techniques and applications of modern deductive logic. Prerequisite: one 100-level PHI course.

275 (ANT 328) Language and Culture The interrelationships of language and culture with particular reference to the data of unwritten languages as these apply to the reconstruction of ethnohistory. Prerequisite: ANT 170.

309 (SPE 309) Communication Theory Prerequisite: SPE 160.

318 (ENG 304) The Structure of Modern English Prerequisite: two 200-level ENG courses.

319 (ENG 305) History of the English Language Prerequisite: two 200-level ENG courses.

328 (SPV 329) Social and Regional Dialects of English Prerequisite: 245.

330 (SPV 321) Psychology of Speech and Language The role of language in controlling verbal and nonverbal behavior. The nature and development of human and animal communication.

418 (ENG 451) Studies in Linguistics Prerequisite: two 200-level ENG courses.

ILLINOIS STATE UNIVERSITY
TESOL PROGRAM
ENGLISH DEPARTMENT
ARTS AND SCIENCES

MINOR IN TESOL

Students enrolling in this program must have at least two years of a foreign language or equivalent at the college level in case the of a native speaker of English, or demonstrated proficiency in English at a level commensurate with the student's role as a language model and instructor in the case of a non-native speaker of English.

18 hours required, exclusive of ENG 397

Required courses: ENG 341, 343, 344, 345, and 346; 3 hours selected from ENG 241, 243, 310, 440, and COM 370.

Elective practicum ENG 397.

Students of undergraduate standing may obtain an Illinois State Approval for Teaching English as a Second Language by fulfilling the following requirements: (1) fulfill teacher education certification requirements of either the Standard Elementary and/or High school Certificate, (2) complete the 18 hours of required course work as listed in the Minor in TESOL, and (3) obtain 100 clock hours of ESL clinical experience or 3 months of teaching experience in English as a Second Language at the appropriate level. This practical experience may be obtained by enrolling in ENG 345 and/or 397.

COURSES

ENG 241 Growth and Structure of the English Language

ENG 243 Traditional and Non-Traditional Grammars

ENG 244 Applied Grammar and Usage for Writers

ENG 310 History and Development of the English Language

ENG 341 Introduction to Descriptive Linguistics Aims and methods of linguistic science. Nature and function of language.

ENG 343 Cross-Cultural Aspects in TESOL

ENG 344 TESOL: Theoretical Foundations

ENG 345 TESOL: Methods and Materials

ENG 346 Assessment and Testing in ESL

COM 370 Psychology of Language Theories and experimental research relating to the development and functions of language.

ENG 397 TESOL Practicum

INDIANA STATE UNIVERSITY
LINGUISTICS PROGRAM
ENGLISH DEPARTMENT

MINOR REQUIREMENTS

Prerequisite: 4 semester hours of a foreign language, or one year of a foreign language in high school.

Required: 210; 411.

To complete the minor, 12 hours of elective courses approved by an adviser in linguistics; at least 6 of these hours must be from courses with significant linguistic content.

COURSE DESCRIPTIONS

210 Elements of General Linguistics An Introduction to historical, comparative, descriptive, and applied linguistics.

310 English Grammar

410 History of the English Language

411 English Linguistics

412 American English

414 Lexicology: Word Form and function The study of vocabulary from a linguistic perspective. Word meaning, usage, and social convention; origin, change, and dialect variation.

415 Lexicography: Making and Using Dictionaries The function, content, and form of the dictionary in relation to different reference needs; the techniques and problems of dictionary making.

416 Evolution of Dictionaries The development of dictionaries from early glossaries to large general and various special dictionaries.

419 Problems in Language and Linguistics

INDIANA UNIVERSITY
LINGUISTICS DEPARTMENT
COLLEGE OF ARTS AND SCIENCES

The Linguistics curriculum is designed to introduce students to methods of analysis and comparison of languages. While any educated person will benefit from a better understanding of the structure and development of language, students who expect to be scholars and teachers of foreign languages, education, English, anthropology, folklore, library science, literature, psychology, philosophy, sociology, and speech and hearing sciences will find a background in linguistics invaluable.

MAJOR REQUIREMENTS

Students must complete the following courses in Linguistics: 365, 366, 410, 411, 430, 431-432. Students must also complete the following:

1. A three credit structure course in a foreign language approved by the Department.

2. Two courses in a non-Indo-European language.

3. At least one three credit course at the 300 level of a foreign language or advance independent study of a foreign language approved by the Department.

RELATED FIELDS

African studies, anthropology, classics, comparative literature, East Asian, English, folklore, French and Italian, Germanic languages, history, mathematics, Near Eastern, philosophy, psychology, Slavic, sociology, Spanish and Portuguese, speech and hearing sciences, theatre and drama, Uralic and Altaic, west European studies and languages with Department of Linguistics numbers.

DOUBLE MAJOR REQUIREMENTS

Students taking linguistics within the framework of a double major need only fulfill the Linguistics Requirements listed above, plus four elective hours in linguistics approved in advance by the Department. Students should consult the college of Arts and Sciences requirements for double majors.

COURSE DESCRIPTIONS

100 English Language Improvement Designed for the foreign student who needs instruction in English.

Introduction to the Study of Language Linguistics as a body of information; nature and function of language; relevance of linguistics to other disciplines, with reference to modern American English and principal European languages.

205 Language and Style A study of variation in language, particularly as it affects the transmission of meaning. Geographic, social, sexual, and situational linguistic variation will be studied. The specialized forms and functions of the languages of politics, advertising, and languages of politics, advertising, and literature will be examined in detail, as will various strategies for verbal manipulation.

365 Introduction to Linguistics Discussion of and some practice in grammatical and phonological analysis with primary emphasis on generative theory.

366 Linguistics and Adjacent Arts and Sciences Prerequisite: 365.

367 Languages of the World Prerequisite: 103 or 365.

408 Readings in Linguistics

410 Introduction to Language Description the physiology of speech, articulatory and acoustic description and classification of speech sounds; universal and phonetic features; the phonetics of English; transcription and ear-training, various notions of the phoneme, distinctive feature, analysis, phonological rules and problem solving. Prerequisite: 365.

411 Introduction to Syntax Focus on transformational grammar, with some discussion of traditional and structural approaches. Prerequisite: 365.

420 Conversational Analysis Concentration on collection and transcription of natural conversations.

427 Introduction to Meaning An introduction to meaning, covering traditional and recent linguistic semantics, and philosophical and logical approaches to semantics and pragmatics where appropriate to linguists' interests. Prerequisite: 365, 411.

430 Language Change and Variation Basic principles of diachronic linguistics. The comparative method. Phonological and morphological development.

431-432 Practicum in Descriptive Linguistics I-II Introductory and advanced field work methods. Prerequisite: 410-411; Prerequisite for 432: 431.

200 Language and Culture

A380 Introduction of African Linguistics

A495 Individual Readings in African Languages

IOWA STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY
LINGUISTICS PROGRAM
SCIENCE AND HUMANITIES

The linguistics program is a cross-disciplinary program in the College of Sciences and Humanities designed to meet the needs of students interested in various aspects of language - its structure, history, varieties, meanings, and uses. Courses offered in seven different departments provide a multidisciplinary approach to the study of human language.

Majors in linguistics are required to complete a minimum of 33 hours in courses from the list below, including ENGL 219, ANTHR 309, CM DIS 271, SP CM 305, ENGL 419, either ENGL 515 or F LNG 491, and either ENGL 420, 512, or F LNG 492. In addition, majors in linguistics must show proficiency in a foreign language equivalent to that achieved after three years of university-level study.

Minors in linguistics are usually individually tailored to the interests of the student, who consults with the chairman or one of the members of the Linguistics Program Advisory Committee. All minors must have a minimum of 15 credits in linguistics, of which 6 must be in courses numbered over 300. All programs must include ENGL 219 or ANTHR 309, and either CM DIS 271 or F LNG 491.

COURSE DESCRIPTIONS

English proficiency requirement: The linguistics program requires a grade of C or better in English 104 and 105, and English 204, 305, or 414; or a B or better in an FLL 370 course.

PHIL 207 Introduction to Symbolic Logic

ENGL 219 Introduction to English Linguistics Prerequisite: 105.

ENGL 220 Applied English Grammar Prerequisite: 105.

SP CM 225 Nonverbal Communication Examination of nonverbal communication and the use of power, liking, disliking, dominance, and submissiveness.

CM DIS 271 Phonetics Analysis of speech through study of individual sounds, their variations, and relationships in context.

CM DIS 275 Introduction to Communication Disorders Survey of nature, causes, types, evaluation, and treatment of major communication disorders such as: articulation, voice, fluency, cleft palate, and hearing loss.

CM DIS 286 Basic Sign Language

SP CM 305 Semantics Nature of symbolic processes: determination of meanings; major approaches to linguistic study. Prerequisite: ENGL 105.

ANTHR 309 Linguistic Anthropology Nature and development of human language capabilities; biological basis of human language acquisition.

CM DIS 370 Speech and Hearing Mechanism Prerequisite: 271 or 275.

PSYCH 413 Psychology of Language Psychological processes involved in primary linguistic activities (speaking and Listening) and secondary linguistic activities (writing and reading). Prerequisite: 101 or ENGL 219.

ENGL 419 English Syntax Prerequisite: 219.

ENGL 420 History and Dialects of the English Language Prerequisite: 105.

CM DIS 471 Language Development and Disorders Definition of components of language and of developmental processes related to each component. Prerequisite: CM DIS 275, PSYCH 230 or CD 129.

F LNG 491 Linguistics for Foreign Language Teaching Phonetics, phonology, and morphology of French and Spanish. Prerequisite: Reading knowledge of Latin or a modern Romance language.

F LNG 492 History of the Romance Languages From pre-classical Latin to the modern Romance languages. Prerequisite: Reading knowledge of Latin or a modern Romance language.

ENGL 495 Teaching English as a Second Language: Methods and Materials Prerequisite: 219 or an introductory course in linguistics.

ENGL 512 Historical Linguistics and Language Classification Genealogical and typological classification of languages. Prerequisite: 3 credits in linguistics or in British literature before 1600.

ENGL 515 Phonology Theoretical and practical analysis of the sound systems of languages. Prerequisite: 511 or an introductory course in linguistics.

LOUISIANA STATE UNIVERSITY
LINGUISTICS PROGRAM
ARTS AND SCIENCES

MINOR

An undergraduate minor in linguistics is available. Required courses include Communication Disorders 2050 or ENG 4010, 2010 or 4012, Communication Disorders 4150, and nine semester hours of electives. Electives may be chosen from one or several of the following areas; however, students are encouraged to choose from at least two different areas. (1) The History of Language - ENG 4011, FRE 4001, GER 4001, SPAN 4005; (2) Communication Theory - Speech Communication 4114, Communication Disorders 4253, 4380; (3) Language and Culture - ANTH 3060, 4060, 4064, 4081, 4082; and (4) Philosophy and Linguistics - PHIL 2010, 4010, 4914, 4951.

COURSE DESCRIPTIONS

ANTH 3060 Introduction to Anthropological Linguistics Cultural variation in language and its uses; problems of language classification and real linguistics.

ANTH 4060 Language and Culture Relationships between various aspects of language and culture. Prerequisite: ANTH 3060 or ENG 4010, 4012 or COMD 2050.

ANTH 4064 Pidgin and Creole Languages Prerequisite: ANTH 4060.

ANTH 4081 Evolution of Man and Culture Man's biological and cultural evolution utilizing evidence from fossil records, archaeology, and ethnography.

ANTH 4082 Social and Cultural Anthropology Culture, society, and language in primitive and complex settings.

COMD 2050 Introduction to Language Linguistic study of the principal interrelated levels of language structure: phonetics, phonology, morphology, syntax, and semantics.

COMD 4150 Phonetics Principles of phonemics, articulatory phonetics, description and classification of sounds, and transcription. Prerequisite: COMD 2050.

COMD 4253 Acoustics of Speech and Hearing Production, transmission, and perception of acoustics in speech. Prerequisite: COMD 2081.

COMD 4380 Speech and Language Development Language acquisition and behavior, language and cognitive development, verbal learning, and structural properties of speech.

COMM 4114 Contemporary Theories of Communication Current methods and theories of human communication; research literature.

ENG 2010 Descriptive English Grammar

ENG 4010 Introduction to Linguistics Historical, geographical, and structural linguistics.

ENG 4011 History of the English Language

ENG 4012 The Contemporary English Language

FRE 4001 History of the French Language

GER 4001 History of the German Language

PHIL 2010 Introduction to Logical Theory Symbolic logic; formal methods of proof, including syllogistics, truth functions, propositional calculus, and elementary predicate calculus.

PHIL 4010 Logic Modern symbolic logic. Prerequisite: PHIL 2010.

PHIL 4914 Philosophy of Language Various theories of meaning, their implications and presuppositions, and their relevance to issues in such areas as theory of perception.

PHIL 4951 Philosophy of Science Philosophical issues related to concept formation and theory construction in the natural, behavioral, and social sciences.

SPAN 4005 Structure of the Spanish Language

MACALESTER COLLEGE
LINGUISTICS DEPARTMENT

In linguistics one studies languages not in order to read, write, or speak them, but to understand how they work, how they change, how they are acquired or learned and what they reveal about mental and social processes. Linguistics, therefore, has an important relation to each discipline dealing with human behavior, culture and values. It is, moreover, a crossroads discipline where both empirical and rational methodologies are used and where differing analyses of human nature and culture are examined and compared in light of evidence furnished by the study of language.

In addition to its contribution to general education, the linguistics department provides specialized students of linguistics with the scholarly tools used in studying language in different disciplines and to give them familiarity with the problems, questions, and issues of different disciplines which involve language. The program of the department also provides training and experience based on linguistic theory and research for students contemplating a career related to language teaching, such as teaching English as a second language, teaching foreign languages, or teaching reading and composition to native speakers of English. A final function of the department is to provide English language instruction for the numerous international students attending Macalester and language instruction for American students in languages in which no major is offered, eg., Japanese.

MAJOR REQUIREMENTS

1. Eight courses in linguistics, to include 24, 26, 51, 88; at least one course from among 61, 63, and at least one course from among 30, 33, 36, 37;
2. Five supporting courses;
3. Proficiency in a language not one's own at a level sufficient to participate effectively in most formal and informal conversations on practical, social, and schoolwork-related topics.
4. Familiarity with another language not one's own at a level sufficient either to participate in formal conversations on practical and social topics or to read the appropriate texts.
5. Note: Students wishing to combine a linguistics major with training in Teaching English as a Second Language should include Linguistics 53, and 55, and 65 in their program of study.

CONCENTRATION REQUIREMENTS

Concentration in Linguistics

1. Six linguistics courses, to include Linguistics 24, 26, 51, and 88.
2. Six supporting courses, showing methods and concepts of two disciplines complementary to linguistics.
3. Proficiency in a language not one's own at a level sufficient to participate effectively in most formal and informal conversations on a practical, social and schoolwork-related topics.
4. Familiarity with another language not one's own at a level sufficient either to participate in informal conversations on a practical and social topics or to read appropriate texts.

Concentration in Applied Linguistics and TESL

1. Six linguistics courses, as follows: 24, 26, 51, 53, 55, 65.
2. Six supporting courses dealing with cognition, learning theory, and/or social process. It is also recommended that at least one course be on U.S. history or culture.
3. Proficiency in a language not one's own at a level sufficient to participate effectively in most formal and informal conversations on a practical, social, and schoolwork-related topics. Familiarity with another language not one's own at a level sufficient either to participate in informal conversations on practical and social topics or to read appropriate texts.

MINOR REQUIREMENTS

Minor in Linguistics

1. Six linguistics courses, to include Linguistics 24, 26 and at least two courses from among 30, 33, 35, 51, 63, 65, 88.
2. Proficiency in a language not one's own at a level sufficient to satisfy routine social demands and limited work requirements.

Minor in Linguistics/TESL

1. Six linguistics courses, to include Linguistics 24, 26, 51, 53, 55, and 65.
2. Proficiency in a language not one's own at a level sufficient to satisfy routine social demands and limited work requirements.

TESL Licensure

Macalester is a licensing institution for the state of Minnesota for teaching English as a second language. The programmatic requirements specified by the Minnesota State Board of Teaching may be satisfied by taking: Linguistics 24, 26, 51, 53, 55, and either History 23 or Anthropology 30. In addition, candidates for licensure must satisfy the requirement for proficiency in a foreign language as well as the regular requirement of education classes and student teaching required of all candidates.

Language Competency Courses

In addition to the six languages in which Macalester offers majors (French, German, Greek, Latin, Russian and Spanish), instruction in the following languages is available in the indicated departments, either in a class or on an individual basis: Chinese (Linguistics), Japanese (Linguistics), Korean (Linguistics), Norwegian (German and Russian), Portuguese (Spanish), Serbo-Croation (German and Russian), English as a Second Language (Linguistics).

Course Descriptions

24 Language and Linguistics This course introduces students to the range of questions and issues linguists address. These include questions about the distinctiveness of human language, the relation of language to thought, the biological foundations of language, first and second language acquisition and the relationship of language to culture.

26 Introduction to Linguistic Analysis This course teaches students the methods and techniques linguists use in analyzing languages. It includes study of the general principles of phonology (sound systems), morphology (word forms) and syntax (sentence structure) and introduces students to much of the specialized vocabulary that is commonly used in the analysis and description of language structure. Prerequisite: 24.

29 Speech and Language in Human Behavior A behavioral and interdisciplinary study of the impact of speech and language upon human behavior. Topics include the origin of speech, the role of language in categorizing and thinking, general semantics, inferences in verbal and non-verbal codes and in male-female communication, role sets and patterns of communication control, intercultural and subcultural code variants, disturbed and therapeutic communication.

30 Language and Culture: Field Techniques An introduction to ethnographic field methods learned in the context of individually run student field projects. Focuses on the anthropologist-informant field relationship and the discovery of cultural knowledge through participant observation and ethnosemantic techniques.

33 Language Change This course studies why languages change; how they change; how linguists go about studying, documenting and explaining such changes; sources and mechanisms of change; types of change; the social motivations for change; internal and external language histories; language families and proto-languages; "standard" languages; dialects; pidgin and creole languages and the basic principles of comparative linguistics and internal reconstruction.

34/50 Phonetics and Phonology This course examines the sounds and sound systems found in natural language. Students learn to identify, transcribe, and produce non-English speech sounds, to analyze speech sounds in terms of their articulatory properties, and to discover and describe phonological processes operative during the sequential production of individual speech sounds in connected speech. By analyzing data from a wide variety of languages, students will investigate the striking differences as well as the intriguing similarities holding across phonetic and phonological systems in the languages of the world. Prerequisite: 24 and 26. (Currently offered as a topics course; under review to become part of the regular curriculum.)

35/50 Semantics and Syntax The topics of this course are the meanings expressed in natural language and the different forms or structures through which meaning can be encoded. The course will survey current theories of meaning as well as different ways exhibited by different languages of cutting up the world of human experience into meaningful categories and of arranging these categories into units of linguistic structure. By analyzing data from a wide variety of languages, students will investigate the striking differences as well as the intriguing similarities holding across semantic and syntactic systems in the languages of the world. Prerequisite: 24 and 26. (Currently offered as a topics course; under review to become part of the regular curriculum.)

36 Sociolinguistics

37 Language and Culture of Deaf People To understand deafness as a social and linguistic experience, it is necessary to gain an appreciation of the nature of the native language of the deaf in America. Therefore, this course describes the language of signs in its linguistic characteristics and explores the implications of these characteristics for the social organization of the deaf community.

40 Etymology and the English Language The development of words and families of words in English, including the relation of classical Greek and Latin to contemporary English, the development of vernacular speech and the logic behind seeming quirks in word histories.

43 International Education and Development This course examines issues in international education and development. It is intended to provide a conceptual base in development theory with a specific focus on education in Third World nations. General educational policy as well as the subsets of linguistic and cultural education policies will be explored. Dichotomies between formal versus non-formal education, and education for self-reliance versus cultural domination will be explored. This is an intermediate level course with a heavy reading component. Prerequisite: Econ 19, Polsci 10.

49 Theory and Criticism of Rhetoric

51 Structural Analysis of Modern English

53 Linguistics and Language Problems in Education Special emphasis on the contribution of linguistics to the teaching of reading and composition and to the education of non-English speaking or bilingual minorities in the United States.

55 Linguistics and Teaching English as a Second Language Based on theory from structural linguistics, psycholinguistics and sociolinguistics, this course teaches students strategies and techniques for teaching English to non-native learners.

56 Methods of Teaching Foreign Languages This course is for majors of French, German, or Spanish who are interested in developing skills and knowledge in teaching as part of their undergraduate major, and counts toward teacher licensure in Minnesota. Fundamental concepts about second language acquisition are introduced in the first half of the course, including some contrastive analysis of English and the target language, the idea of language as communication, and the relationships of language and culture. The second half of the course presents techniques for teaching the skills of listening, speaking, reading, and writing. Students have an opportunity to practice these techniques, to develop a course design, and to write instruments for evaluating language skills. Prerequisite: 26 or 51.

61 Theories of Linguistics An in-depth study of major models of linguistic analysis, including the work of Noam Chomsky. Students will study several important models during the semester and examine their relationship to current as well as historical trends in the development of linguistic theory. Prerequisite: at least one LIN course from among 26, 33, 63, 68.

63 Psychology of Language Inquiry into the psychological foundations of the acquisition and use of language and the contributions of modern linguistics to the study of psychology. Prerequisite: two courses in psychology and/or linguistics.

65 Theories of Second Language Learning This course provides models of second language learning with consideration of psychological, instructional, and affective factors. Students discuss issues in language learning: language transfer and contrastive analysis, error analysis, interlanguage, the Monitor model, affective variables, social and cultural factors, similarities and differences between first and second language learning, and the implications of teaching language for proficiency. Students have the opportunity to look at languages in contrast, to analyze the output of language learners, and to develop sensitivity to learner-generated rule systems. Prerequisite: 24.

70 Early German Language and Literature

Courses in English as a Second Language (ESL)

The purpose of the program in ESL is to prepare students as quickly as possible to carry full academic loads in American colleges and universities.

14 Development of Reading Skills in English

15 Conversation and Comprehension

16 Intermediate Composition

17 Cultures in Contrast

18 Advanced Composition

20 Critical Reading

22 Seminar Techniques

MC GILL UNIVERSITY
LINGUISTICS DEPARTMENT
FACULTY OF ARTS

Linguistics is the study of the properties of language and the way in which languages are learned and used in human society. Because language is so important and probably unique to man and his activities, the study of linguistics involves an unusually wide range of issues of relevance to many fields of inquiry. If your interests are widespread, linguistics can provide an excellent way of integrating your studies.

The department of Linguistics does not normally undertake the teaching of any specific language, especially where provision for such instruction is made elsewhere in the University. Many linguistics courses, however, serve as a useful basis for or adjunct to language learning as well as to other fields of study: e.g., Anthropology, Education, Philosophy, Psychology, Sociology, Mathematics, etc. Among the professional goals open to persons with linguistic training are those of language teaching, translating, research in the fields of anthropology, sociology or psycholinguistics, speech pathology, various literary and scholarly occupations and many professional fields requiring the use or acquisition of language and, of course, advanced work in Linguistics itself. Student's continuing in the field may ultimately work towards a Master's or Doctor's degree.

MAJOR REQUIREMENTS

The major program in Linguistics includes:

36 credits in Linguistics. The following courses are required: 250A, 351B, 355A, 360A, 455B plus at least three 400- 500-level courses to be selected in consultation with the Department and four other Linguistics courses approved by the Department.

18 credits taken in one or two of the following disciplines: Anthropology, Language (classical or modern), Mathematics, Philosophy, Psychology, Sociology. Six of the eighteen credits may be taken in Linguistics.

COURSE DESCRIPTIONS

200A,B Introduction to the Study of Language I First part of an introductory sequence to the study of language. Topics include: phonology, morphology, syntax, language variation and change.

201B Introduction to the Study of Language II Topics include: animal communication, semantics and pragmatics, language acquisition, psychology of language.

230A Anthropological Linguistics An introduction to language and its place in culture.

250A General Phonetics Intensive training in articulatory, acoustic and auditory phonetics.

305D Self-Instructional Language Module

310A History of Linguistics Exploration of various theories about language through time, Greek and Indian grammarians through contemporary theories.

321B Linguistics Applied to Language Learning A critical study of the application of linguistic theory and description to first and second language learning.

325B Sociolinguistics A focus on linguistic correlates, determinants, and consequences of social behavior.

330A Indian Languages of North America A study of their distribution and classification with special attention to selected structural types.

340A Introduction to Historical Linguistics General principles involved in the study of language change over time; the methods of reconstruction and historical explanation.

350A Linguistic Aspects of Bilingualism Linguistic competence and performance in bilinguals: the organization of the bilingual's grammar.

351B Phonology I Survey of the development of phonology: the concept of the phoneme, structural phonology, generative phonology. Prerequisite: 250A.

355A Morphology: Theory and Analysis of Word-Structure Introduction to the study of the internal structure of words, and recent attempts to formulate a theory of word-structure.

360A Syntax I Introduction to the study of generative syntax of natural languages, emphasizing basic concepts of formalism.

371B Experimental Linguistic Phonetics Speech as a motor behavior and as acoustical phenomenon. Speech perception. Experimentation in the Phonetics Research Laboratory. Prerequisite: 250A.

410B Structure of a Specific Language Prerequisite: 351B, 355A, and 360A.

455B Semantics I Discussion of the basic notions and concepts necessary for the study of linguistic semantics, its place in the theory of language. Prerequisite: 360A.

460A,B Proseminar I in a Selected Field

462B,A Proseminar II in a Selected Field

471B Field Methods of Linguistics Prerequisite: 351B, 355A, and 360A.

482D Field or Research Project

491B Linguistic Theory I Intensive investigation of various critical problems in different theories of language. Prerequisite: 6 credits in linguistics.

530A Phonology II Review of the analytical techniques and formal devices of generative phonology. Prerequisite: 351B.

539A Issues in Historical Linguistics Prerequisite: 340A, 351B, and 530A, can be taken concurrently.

541B Issues in Historical Linguistics II Investigation of language change in terms of the implications for a theory of grammar. Prerequisite: 340A, 360A, and 571B, can be taken concurrently.

571B Syntax II Extension and refinement of the theory of syntax developed in Syntax I - especially with respect to the theories of Binding and Case. Prerequisite: 360A.

580A Theory of Second Language Development A study of research on second language acquisition and learning by children and adults. Prerequisite: 360A and 3 other credits in linguistics.

590A Introduction to Neurolinguistics A study of neurolinguistic theories of competence and performance: language storage, speech production and comprehension.

MEMORIAL UNIVERSITY OF NEWFOUNDLAND
LINGUISTICS DEPARTMENT
FACULTY OF ARTS

MAJOR REQUIREMENTS

1. A student may not receive credit for more than one course from each of the following sets:

    a. 1001, 2050, 1100, 2100

    b. 1000, 2000, 2101, 2103

    c. 2001, 2102, 2104

    d. 2300, 3200

    e. 2301, 3100

    f. 3300, 3500

    g. 3301, 3311

    h. 3410, 3450

    i. 2210, 3450

    j. 3200, 3201

    k. 4200, 4201

    l. 4212, 3212

2. Prerequisites may be waived in special cases by the Head of the Department.

3. Students majoring in Linguistics must complete twelve Linguistics courses which must include the courses numbered: 2103, 2104, 3000, 3100, 3104, 3201, 3500, 3850 plus two of 4110, 4201, 4210, 4350, 4400, 4700, 4850.

4. In planning a Major, students are required to consult with an adviser in the Linguistics Department to ensure that their proposed program is possible within the constraints of course scheduling and prerequisites.

MINOR REQUIREMENTS

Students are required to complete Linguistics 2103, 2104, 3000, 3100, 3201, and 3500, plus two other courses chosen in consultation with the Department.

Aside from the General Minor, Minors in Speech Therapy Preparation, Language, Social Science and for Potential Teachers of Language are offered.

COURSE DESCRIPTIONS

1100 Aspects of Language A general and non-technical introduction to linguistic topics which are important for an understanding of mankind from either the humanities or social science point of view.

2020 Structure of Inuttut I For native speakers only.

2021 Structure of Inuttut II Prerequisite: 2020.

2030 Structure of Montagnais I For native speakers only.

2031 Structure of Montagnais II Prerequisite: 2030.

2040 Structure of Micmac I For native speakers only.

2041 Structure of Micmac II Prerequisite: 2040.

2100 Introduction to Linguistics: Looking at Language A general and non-technical introduction to language as a human and social phenomenon: its use, origin, diversity, development.

2103 Introduction to Language I: Morphology and Syntax Introduction to the study of the meaningful components of words and sentences.

2104 Introduction to Language II: Phonetics and Phonology Introduction to the sounds of speech, their description (phonetics), organization (phonology) and development (historical sound change).

2150 Introduction to Second language Acquisition Focus on the processes and strategies used by learners as they pass through the stages of language development in their acquisition of a second language. Prerequisite: 1100, 2100, 2103, or 2104.

2210 Language in Newfoundland and Labrador: An Introduction to Linguistic Variation

2400 History of the English Language to 1500

2401 History of the English Language from 1500 to Modern Times

3000 Morphological Analysis The meaningful parts from which words are built will be studied by using restricted data from a variety of languages. Prerequisite: 2103.

3100 Transformational Syntax Examination of syntactic structure within the framework of one of the most important modern linguistic theories, transformational-generative grammar. Prerequisite: 2103.

3104 Phonetics Builds on the introduction to phonetics given in 2104, and deals with the wide range of sounds that are used in human languages. Prerequisite: 2104.

3201 Generative Phonology Phonological rules as the connection between surface and underlying representations; distinctive features proposed for a universal classification of segments. Prerequisite: 2104.

3212 Language, Sex and Gender A survey of language and gender issues, including (i) the representation of males and females in English and other languages; (ii) stereotypes associated with male and female speech; (iii) sex differences in language production. Prerequisite: 2210 or Women's Studies 2000.

3310 The Structure of Modern French: Phonology and Morphology Prerequisite: FRE 2100.

3311 Introduction to General Linguistics: Aspects of French Linguistic Theory An enquiry into the nature of language as a phenomenon. Prerequisite: A linguistics course or FRE 2100.

3410 Areal and Temporal Variations in Newfoundland English Prerequisite: 2210, 2103, and 2104.

3420 Introduction to Classical Sanskrit Introduction to Sanskrit and preparation for the reading of representative pieces of Classical Sanskrit literature in the original; and the advanced historical comparative study of the Indo-European group of languages.

3421 Classical and Vedic Sanskrit Any grammar not covered in the first course will be completed and the Vedic dialect will be studied. Prerequisite: 3420.

3500 Historical Linguistics Deals with the basic principles of historical and comparative linguistics within the European family of languages. Prerequisite: 2103 and 2104.

3850 Semantics Word-level semantics: polysemy, semantic fields, some controversies surrounding conceptualism. Prerequisite: 1100/2100, 3000 and 3100.

4010/4011 Linguistic Introduction to Cree

4020/4021 Linguistic Introduction to Inuttut Prerequisite: two of 3000, 3100, 3201.

4030/4031 Linguistic Introduction to Montagnais

4040/4041 Linguistic Introduction to Micmac

4110 Selected Topics in Transformational Grammar Prerequisite: 3100.

4150 Second Language Acquisition II Prerequisite: 2150.

4151 Applied Linguistics: Evaluation of Materials Prerequisite: 4150.

4201 Phonological Theory Course cover further work in generative phonology, and compares the generative approach with other approaches to phonology. Prerequisite: 3201.

4210 Sociolinguistics The detailed patterns of variation found in any given speech community, and the factors which co-vary with them. Prerequisite: 2210, 2103 and 2104.

4300 History of the French Language

4301 French Dialects, Patois and Argots Prerequisite: FRE 4300.

4310 The French Language in Canada Prerequisite: 3310 and FRE 3700.

4350 General Romance Linguistics A comparative survey of the different branches of Romance. Prerequisite: 3500.

4400 Historical and Comparative Linguistics Advanced work in the comparison and reconstruction of phonological and morphological systems (primarily Indo-European) and theoretical issues of linguistic change. Prerequisite: 3000, 3201, 3500.

4403 Etymology: History of English Words Prerequisite: 2400 or 3500.

4420 English Dialectology I

4421 English Dialectology II Prerequisite: 4420.

4700 Experimental Phonetics Some empirical methods of studying the different stages of "the speech chain" which links speaker to hearer, with special emphasis on the acoustic and perceptual stages. Prerequisite: 2104.

MIAMI UNIVERSITY
LINGUISTICS PROGRAM
ENGLISH DEPARTMENT
COLLEGE OF ART AND SCIENCE

The linguistics major emphasizes interdisciplinary study. Half of the required 24 hours for the major are in basic linguistics courses in the English Department and the other half in cognate linguistics courses in other departments, such as Anthropology, Psychology, Communications, Philosophy, and language. In addition, a required minimum of 16 related hours is selected from a list of courses, all of which relate wholly or in part to some aspects of the study of language.

MAJOR REQUIREMENTS

At least 12 hours from the following:

ENG 201 Introduction to the Study of Language

ENG 302 Structure of Modern English

ENG 303 Introduction to Linguistics

ENG 404 Phonology

ENG 405 Syntax and Semantics

ENG 406 Historical and Comparative Linguistics

ENG 410 Topics in Linguistics

At least 12 hours from the following:

1. general linguistics (any course from the above list not counted toward the 12 hours in (1);
2. anthropological linguistics: ATH 365 Language and Culture; 465 Cognitive Anthropology;
3. psychology of language: 464 Language and Cognition; 466 Language and Thought;
4. speech science: COM 121 Speech and Language Development; 128 Phonetics; 222 Physical Bases of Speech;
5. philosophy of language and logic: PHL 273 Formal Logic; 373 Symbolic Logic; 497 Philosophy of Language;
6. language structure and history: ENG 301 History of English; FRE 314 Structural Patterns of French; GER 442 History of German.

MINOR REQUIREMENTS

To complete the minor in linguistics, at least 18 semester hours must be earned. The requirements are:

ENG 303 Introduction to Linguistics

Two courses from: ENG 404, 405, 406. The other course can count for the 8 hours required below.

At least 8 hours from: ATH 365, ATH 465, COM 222, ENG 301, EMG 302, ENG 410, FRE 314, Ger 442, MTH 483, PHL 373, PSY 464, PSY 466, SPN 441, SPN 443, and SPN 445.

Also offered is a minor in Teaching English as a Second Language; at least 18 semester hours are required from the following list:

ENG 302 Structure of Modern English

ENG 402, 403 Study of English as a Second Language

ATH 301 Intercultural Relations

CPL 201 Introduction to Methods and Concepts

ENG 141 or 142 Life and Thought in American Literature

An additional course in linguistics, chosen from:

ENG 301, 303, 404, 405, 406, 410.

Students in the program must also demonstrate knowledge of a foreign language by completing the 202 course or by earning credit for that course through a proficiency examination. If a non-native speaker of English, the requirement may be satisfied by passing the freshman English sequence or an advanced English composition course.

From the following (no more than three courses from one department may be used):

RELATED COURSES

COM 223 Instrumentation in Speech and Hearing

COM 333 Contemporary Theories of Communication

ENG 371 Chaucer

ENG 403 English as a Foreign Language

PHL 205 Science and Culture

PHL 263 Informal logic

PHL 309 Analytic Philosophy

PHL 471 Philosophy of Science

PHL 494 Philosophy of Mind

PSY 211 Developmental Psychology

PSY 322 Social Psychology

ATH 155 General Anthropology

ATH 201 Peoples of the World

ATH 331 Social Anthropology

SOC 215 Communication and society

MTH 483 Introduction to Formal Systems and Mathematical Logic

EDT 315 Language Arts in the Elementary School

EDT 333, 334 Foreign Language Teaching in Schools

LAT 321, 322 Latin Prose Composition and Syntax

FRE 361 French Pronunciation

SPN 441 Spanish Phonetics and Phonology

SPN 443 Applied Spanish Linguistics

SPN 445 History of the Spanish Language

MICHIGAN STATE UNIVERSITY
LINGUISTICS PROGRAM
DEPT. OF LINGUISTICS. AND GER., SLAVIC-ASIAN AND AFRICAN LANG.
COLLEGE OF ARTS AND LETTERS

Linguistics is the study of the nature of human language and the characteristics of particular languages. It is a field with close ties to many areas of study, such as English, foreign languages, psychology, sociology, anthropology, philosophy, history, mathematics and speech and language pathology; majors may emphasize any one or more of these areas.

MAJOR REQUIREMENTS

An undergraduate major in linguistics consists of courses in linguistics, plus cognate requirements, earned as follows:

1. Required courses:

   a. 200 Language and Linguistics or 401 Introduction to Linguistics

   b. 402 Phonetics and Phonemics

      403 Morphology

      404 Syntactic Phenomena

      421 Articulatory Phonetics

      425 Field Methods

      431 Introduction to Transformational Grammar

      471 Principles and Methods of Historical Linguistics

      490 Senior Thesis

2. Additional Courses

   a. A minimum of 9 to 12 credits from the following:
      280 Introduction to sociolinguistics
      408 History of Linguistics
      410 Child Language Acquisition
      415 Sociolinguistics Topics
      499 Various topics--or LIN 821 or LIN 831, with different requirements if registered as 499

   b. Any other courses in linguistics in the Department or Linguistics or, with permission, outside of the department, to make up 45 linguistics credits.

3. Cognate--3 cognates required as follows:
   - a. Foreign Language--12 credits 200-level or above in any non-European language or 300-level or above in European languages.
   - b. Two cognates. One must by outside of Arts and Letters, consisting of a minimum of 9 to 12 credits, 6 to 9 of which should by at the 300- or 400-level.

COURSE DESCRIPTIONS

200 Language and Linguistics Especially for students in areas other than linguistics, the course consists of an introduction to language and linguistics, emphasizing the application of linguistics to various other disciplines.

250 Animal Communication and Language Comparison of animal systems of communication in relation to the structural design of human language; types of signals and their content compared; development of human language compared with development of communication in animals.

280 Introduction to Sociolinguistics The association of linguistic features and choice among linguistic varieties with socio-cultural variables. Topics: small group interactions, styles and dialects, multilingualism, codeswitching, language maintenance and shift, language policy.

401 Introduction to Linguistics The scientific study of human languages. Basic goals, assumptions, terminology, and research results of modern theoretical and applied linguistics, with examples from a variety of languages.

402 Phonology Sounds and sound systems, emphasizing the four basic areas of articulatory phonetics, phonetic features and components, classical phonemics, and phonology in contemporary linguistic theories.

403 Morphology Structure of words, conveying the identification and classification of morphemes, morphophonemics alternation, and morphology in contemporary linguistic theories.

404 Syntactic Phenomena Essential syntactic phenomena in the languages of the world, syntactic description of phrases, clauses, and sentences, and its relation to morphological structures and meaning structures.

408 History of Linguistics The origin and development of linguistic studies from ancient India and Greece to the present. Provides a foundation for the understanding of contemporary issues in linguistics.

410 Child Language Acquisition Linguistic issues, perspectives, and research on the acquisition of language, in spoken and written form, by children; phonology, morphology, syntax, semantics, and linguistic universal; implications for related disciplines.

415 Sociolinguistics Topics Linguistic choices among different styles, dialects and languages as socio-psychological symbols. Communicative competence, subjective speech evaluations, social dialects, socially motivated language change.

421 Articulatory Phonetics Development of phonetic skills for the learning and teaching of languages.

425 Field Methods

431 Introduction to Transformational Grammar Investigation of the origin and development of transformational theory of syntax; properties of deep structure, surface structure, and transformations; application of transformational concepts to native and foreign language learning.

471 Principles and Methods of Historical Linguistics Types of linguistic change and the methods used by linguists to study the historical development of languages and language families.

MONTCLAIR STATE COLLEGE
LINGUISTICS DEPARTMENT
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

Because language penetrates nearly every facet of our existence, it is one of the most important of human activities. The courses in Linguistics reflect this and explore the many aspects of language: its structure, its history, its relationship to society and to psychological processes, its role in shaping our attitude, its use in literature, and many other topics.

The department offers general courses for non-majors and specialized courses for majors, as well as a minor program and a variety of courses for students in other fields. In addition, the department offers courses leading to certification in Teaching English as a Second Language (TESL).

Linguistics majors receive a Bachelor of Arts degree.

MAJOR REQUIREMENTS

1. Required courses: 210, 230, 300, 301, 245 or 330;
2. Electives: 18 semester hours from the appropriate list to be obtained from the department.

MINOR REQUIREMENTS

1. Required Course: 210;
2. Electives: Select 15 semester hours from the appropriate list available from the department.

COURSE DESCRIPTIONS

203 Anthropological Linguistics Linguistic system through the use of informants (speakers) of non-Indo-European languages and through published data from a variety of Amerindian and African Languages. The relationship of linguistic structure and theory to cultural systems.

210 Introduction to General Linguistics The nature and structure of language; the basic techniques for analyzing linguistic structures; phonological, syntactic, and semantic structure of languages; language and dialects; language change; the comparative method in linguistics; human and animal communications; first and second language learning.

220 Structure of American English

230 Phonetics and Phonological Theory How sounds are produced in various languages, their acoustic properties, classification and description. Workbook problems based on many languages.

245 Language and Culture Language in its cultural context. Relationship of linguistic to non-linguistic variables. Ethnosemantics, componential analysis, linguistic relativity principle.

250 Language of Propaganda An examination of the ways in which speakers and writers manipulate language to influence our thinking.

255 Women and Language A sociolinguistic study of sex differentiation in English and other languages. Course includes a survey of the literature on women and language plus practical experience in collecting and analyzing linguistic data.

260 Dialectology Principles of dialect study; application to American dialects; the origin and development of American dialects in historical, literary, regional, social, and urban perspectives.

270 History of Linguistics Linguistics from ancient Sanskrit grammarians to the present. Present-Day: structuralism, glossematics, Prague School, London School, Tagmemics, stratificational grammar, transformational grammar.

280 Bilingualism Compound and coordinate bilingualism; attitudes, motivation and functions of languages in multilingual settings, problems of newly-independent, multilingual nations; problems of educating minority groups in this country whose native language is not English.

290 Language of the Law The characteristic properties of legal English; both its linguistic structures and its social and psychological functions. Practice in analyzing and rewriting legal texts into plain English.

300 Syntax and Semantics I Deals with modern approaches to the description of sentence structure and meaning in language; emphasis on structural grammar.

301 Syntax and Semantics Deals with modern approaches to the description of sentence structure and meaning in language; emphasis on transformational grammar and its offshoots.

325 Applied Linguistics Comparison of first and second language acquisition; bilingualism; dialectology; contrastive analysis; interference and interlanguage errors; reading and writing; translation.

330 Language in Society Correlations between language varieties, their functions in particular settings, and the characteristics of their speakers. Emphasis on black English. The role of second languages within a society: Pidgins, Creoles, Lingua Francas, Diglossia, etc.

370 Comparative and Historical Linguistics Similarities and differences among languages and language families at one point in time and as those develop in time; reconstructing the common ancestor of related languages and determining general laws of linguistic change.

384 The Grammars of English A comprehensive review of English grammar and includes a critical overview of traditional, structural, and transformational grammar.

430 Field Methods Collecting Linguistic data from an informant; human factors in field work; qualifications of the informant; elicitation techniques.

480 Linguistics in Education and Society The course is intended to acquaint students involved in language education with the applications of linguistics for education and for understanding the functioning of language in society.

Q2001 250 Psycholinguistics The study of language through linguistic, behavioral and cognitive methods. Basic Linguistic ideas for the explication of problems in grammar, cognitive structure, semantic meaning and speech production and comprehension. Prerequisite: T2001 105.

NORTHEASTERN ILLINOIS UNIVERSITY
LINGUISTICS DEPARTMENT
COLLEGE OF ARTS AND SCIENCES

Undergraduate programs in linguistics introduce students to the nature of language, the principles and methods of linguistic study, the phonological and syntactical structure of language in general, as well as the structure of English and , to a lesser extent other languages. The liberal arts major in Linguistics is designed to provide the student with the tools for looking at language as an object of interest in itself and in relation to the society and culture of which it is a part.

MAJOR REQUIREMENTS

33 credits required for the major: 207 Lexicology: The Study of Words 208 Grammars of English 211 Introduction to Phonology 313 Advanced Syntax

One of the following: 201 Language and Culture 204 Language and Society

One of the following: 203 Development of American English 205 Language and Mind

One of the following: 312 The History of the English Language 325 The Child's Acquisition of Language

Electives: Choose four courses from the following:

a. Any of the options not chosen above (201 or 204; 203 or 205; 312 or 325).

b. Any of the following courses:
    101 Introduction to General Linguistics
    206 Language and Literature
    301 Semantic Analysis
    304 Teaching English as a Second Language
    305 Introductory Psycholinguistics
    306 Linguistics and Reading
    327 Seminar
    344 Historical Linguistics
    350 Advanced Study in Linguistics

MINOR

18 credits is required for the minor in Linguistics. The courses must be chosen in consultation with a departmental advisor.

A minor in Linguistics for the Bachelor of Arts Degree in Elementary Education is also offered.

COURSE DESCRIPTIONS

101 Introduction to General Linguistics Nature and structure of languages and modern American English in particular.

201 Language and Culture Cultural, anthropological, psychological and linguistic study of various aspects of the interconnections of language and culture.

203 The Development of American English Historical and structural approach to American English with attention to regional dialects and dialect geography.

204 Language and Society An introduction to the various aspects of the relationship between language and its function in society.

205 Language and Mind An introduction to basic principles of psycholinguistics with particular attention to meaning, language and cognition, and the child's acquisition of language.

206 Language and Literature Works of literature studied as they present various models of language with attention to forms, techniques and styles, through application of linguistic principles and methods.

207 Lexicology: The study of words Special attention to English, from an historical perspective, a structural and a sociolinguistic perspective.

208 Grammars of English

211 Introduction to Phonology Introduction to theories of sound patterning in language.

301 Semantic Analysis An introductory study of some of the problems of meaning in natural language.

302 Linguistics for Language Teachers Introduction to applied linguistics.

304 Teaching English as a Second Language

305 Introductory Psycholinguistics A study of the processes underlying the production and comprehension of language.

306 Linguistics and Reading An examination of the relationship between language structure and the reading process, with emphasis on the practical problems such as the variety of dialectally different sound-symbol correspondences in English.

312 History of the English Language

313 Advanced Syntax Advanced work in current methods of morpho-syntactic analysis, with emphasis on the transformational-generative approach.

325 The Child's Acquisition of Language Study of research in a child's acquisition of the ability to recognize and produce the phonemes and morphemes of his/her native language.

327 Seminar in Linguistics

344 Historical Linguistics Place of historical and comparative studies in the broader field of linguistics.

350 Advanced Study in Linguistics

NORTHEASTERN UNIVERSITY
LINGUISTICS PROGRAM
SCHOOL OF ARTS AND SCIENCES

Linguistics is the science of language and is concerned with such issues as how children learn to speak, how we understand and produce language, how language barriers keep people apart and how language ties bring them together, how language is structured and how it is represented in the brain, why some people are better at acquiring a second language than others, and how sign languages are different from spoken languages.

The major in linguistics is an interdepartmental enterprise. Five departments (English, Modern Languages, Philosophy and Religion, Psychology, and Sociology/Anthropology) collaborate to offer a comprehensive program that makes use of the vast resources and talent that exist at Northeastern University in the field of linguistics. The major reflects the current research of such diverse people as linguists, sociologists, psychologists, language educators, and teachers of second languages. It is administered by a coordinator who is a member of the Psychology Department and the linguistics faculty.

Students enrolled in the linguistics major can obtain either a bachelor of arts or a bachelor of science degree. These two degrees are in every way identical except that the second language requirement can be met with American Sign Language in the B.S. degree but not in the B.A. degree.

MAJOR REQUIREMENTS

GENERAL REQUIREMENTS

ENG 1113 Introduction to Language and Linguistics

ENG 1401 Introduction to Syntax

PSY 1262 Language and Cognition

PSY 1361 Introduction to Phonetics

SOA 1135 Language and Culture

PHL 1215 Symbolic Logic

SECOND LANGUAGE REQUIREMENT

Proficiency through Intermediate II plus two advanced courses. The college language placement procedures will be used to determine the level of proficiency in a spoken second language.

ADDITIONAL COURSES

Five courses from the list below, one laboratory course, two seminars, and one practicum.

MINOR REQUIREMENTS

The minor consists of six courses: ENG 1118 and one course from ENG 1401, PSY 1262, PSY 1361 and four additional courses from a large set of courses offered by the program.

COURSES

PSY 1261 Bilingualism

PSY 1263 Body Language

PSY 1264 Animal Communication

PSY 1362 Child Language

PSY 1363 Linguistics of American Sign Language

PSY 1364 Cognition

PSY 1365 Language and the Brain

PHL 1440 Philosophy of Language

ENG 1119 Foundations of the English Language

ENG 1402 Grammars of English

ENG 1407 Introduction to Semantics

ENG 1403 Topics in Linguistics

LNL 1235 Applied Linguistics

LNG 1236 Applied Linguistics II

LABORATORY COURSE

PSY 1562 Laboratory in Psycholinguistics

SEMINARS

PSY 1661 Seminar in Psycholinguistics

PSY 1662 Seminar in Cognition

ENG 1690 Seminar in Stylistics

PRACTICUM

PSY 1890 or SOA 1800 or PHL 1800 or ENG 1810 or LNG 1801

(Field work, interpreting, teaching, directed study, etc.)

NORTHERN ILLINOIS UNIVERSITY
LINGUISTICS PROGRAM
ENGLISH DEPARTMENT

LINGUISTICS MINOR

The minor in linguistics is an individualized interdisciplinary program that offers the opportunity to study the nature of human language, theories, methods and applications of linguistics in a comprehensive way, utilizing faculty and course resources in several departments.

The minor in linguistics is recommended to students who want recognition for having focused their elective courses on linguistics, particularly to students interested in careers where problems of language communication and the role of language permeating most of human interactions are involved, such as teaching, social and psychological work with ethnic minorities, journalism, editing, broadcasting, foreign service and others. It is also appropriate for students planning to do graduate work in anthropology, foreign languages, English, theoretical and applied linguistics, psychology, sociology and other related disciplines.

MINOR REQUIREMENTS

18 hours. Select one of the two introductory courses (3 hours) and at least 9 hours from the core courses. The remaining courses should be taken from the specialized and related courses.

COURSES

230 Anthropology of Language

318 Language and Linguistics

431 Synchronic Linguistics

432 Diachronic Linguistics

220 Phonetics

321 Structure of Modern English

431 Morphology and Syntax

483 Applied Linguistics in the Romance Languages

404 Communication Theories

408 Semantic Aspects of Communication

331 Language and Culture

435 Field Linguistics

490 Anthropological Research Training: Linguistics

326 Introduction to Speech Science

403 Language Development in Children

433 The Theory of Bilingual Education

320 The Backgrounds of Modern English

430 Phonology

432 Topics in General Linguistics

301 Advanced French Grammar

411 Advanced Composition in French

481 French Phonetics and Phometics

301 Advanced Spanish Grammar

411 Advanced Composition in Spanish

481 Spanish Phonetics and Phonemics

301 Problems of German Grammar and Style

481 History and Structure of the German Language

481 Independent Study in Foreign Language

304 Philosophy of Language

NORTHWESTERN UNIVERSITY
LINGUISTICS DEPARTMENT
ARTS AND SCIENCES

Linguistics is the scientific study of particular languages and of human language in general. Languages are systematic, and linguistics, at its core, analyzes word and sentence structure, meaning, and the systems of speech sounds. Another important part of linguistics is concerned with language variation according to social setting (sociolinguistics), geographical regions (dialectology), and time periods (historical linguistics). The fundamentally important relationship between language and mind is investigated in psycholinguistics.

In addition to these core subjects, members of the faculty are especially interested in computational linguistics, languages of Africa, pidgins and Creoles, and lexicography. Library collections reflect these strengths.

Knowledge of the origins, nature, and functions of language is one of the best tools we can employ in seeking to understand our humanness.

MAJOR REQUIREMENTS

Prerequisite: B06 and B07.

Required Courses: C05, C06 or C16, C17. Six additional courses selected from two groups:

a. practical: (the application of linguistics) C07, C11, C12, C15, C16, C24, C30 (where topic is appropriate), C46, C56, C62; ENG C03, C04.

b. formal: (formal methods of language analysis) C06, C16, C20, C29, C46,; ENG C03; and others chosen with the approval of the director of undergraduate studies.

c. language and behavior: (the relationship between symbol and action) C08, C09, C10, C11, C14, C15, C20, C29, C30 (where topic is appropriate), C62; ANTH C61.

d. language variation: (social, historical, and dialect differences in language) C02, C04, C10, C15, C16, C20, C30 (where topic is appropriate); ANTH C61; ENG C02.

e. linguistic approaches to English: (structural and historical analysis of English) C03, C04, C07, C12; ENG C01, C02, C03, C04.

Related Courses: in consultation with the undergraduate adviser, each student will select from other departments four courses related to those taken in linguistics.

COURSE DESCRIPTIONS

A10 Languages and Linguistics The nature and structure of language. Methods of linguistic analysis.

A11 Words and Meaning Words: their structure, semantic development, organization in dictionaries, and role in human communication and social judgments.

B03 Languages of the World Survey of the major languages of the world, designed for students outside of the department.

B06 Syntax and Meaning in Human Language Formal analysis, rules, and notation for syntax of languages; basic principles and concepts in the analysis of meaning in languages.

B07 Sound Patterns in Human Language The formal analysis, rules, and notation of sound contrasts and sequences in various languages.

B08 Cross-Cultural Communication in the Classroom The role of language in the learning process. Recent research into dialect differences and their impact on the classroom.

B09 Language and Society Introductory course emphasizing social structure and language use.

C01 ENG Structure of the English Language

C01 Introduction to the Study of Language Linguistics as it is applies to language learning, language skills, and language problems.

C02 ENG History of the English Language

C02 Introduction to Comparative and Historical Linguistics Principles of the comparative method and the method of internal reconstruction; development of linguistic science in the 19th century. Prerequisite: B07.

C03 Traditional English Grammar

C04 ENG Practical Rhetoric

C04 American English

C05 Lexical Semantics Introduction to lexical semantics; issues in the linguistic study of word meanings.

C06 Fundamentals of Syntax Introduction to basic terms and concepts in the syntax of human languages.

C07 Applied Linguistics: Methods of Foreign Language Teaching

C08 The Development of Language and Thought Relationship between language and thought; development of this relationship in ontogenesis and social history.

C09 Psycholinguistics Interrelationships of linguistic and psychological variables in human language use.

C09 SPEECH Culture, Language, and Learning

C10 Sociolinguistics Advanced topics of applied and theoretical interest in the sociology of language. Patterns of language use in multilingual societies. Prerequisite: B09.

C11 Child Language How children acquire the forms and functions of their native language. Child bilingualism.

C12 Linguistics and English Composition

C14 Neurolinguistics Linguistic and psycholinguistic issues raised by recent research in aphasia and neurolinguistics.

C15 Bilingualism Sociological, psychological, and linguistic factors affecting the simultaneous or sequential acquisition of two or more languages.

C16 Phonetics Principles of articulatory phonetics, practice in transcribing various languages, principles of contrast and distribution.

C17 Language Variation Differences in languages that correlate with historical periods, geographical regions, societal groupings, and functional purpose.

C20 Structure of Various Languages Phonological, morphological, and syntactic structure of a particular language.

C24 Language and the Professions Analysis of language use and patterns in the context of medicine, law, advertising, etc.

C29 Pragmatics Introduction to linguistic pragmatics. The role of context in utterance production and interpretation.

C30 Topics in Language and Behavior

C46 Computers and Language Analysis Computer applications to language analysis: Literary analysis, historical linguistics, dialectology, grammar testing, phonological analysis, machine translation.

C51 The History of Linguistics Linguistics from antiquity to present.

C56 Language Assessment Theory and practice in language assessment; evaluation, development, and use of diagnostic testing.

C61 ANTH Linguistic Anthropology

C62 Second Language Acquisition

C80 English in the American University

C81 Advanced English in the American University

C98 Undergraduate Seminar in Linguistics

OAKLAND UNIVERSITY
LINGUISTICS DEPARTMENT
COLLEGE OF ARTS AND SCIENCE

Linguistics is concerned with the objective study of language, language history, comparison of languages and with theories about human languages and their implications in language acquisition and learning theory. As recent research has indicated, linguistics plays a pivotal role in studies dealing with the nature of the mind. Rapid expansion of knowledge in linguistics has involved such fields as anthropology, computer and information science, language teaching, speech pathology, sociology, and dialectology, and has produced the new disciplines of biolinguistics, computational linguistics, psycholinguistics and sociolinguistics as exciting and viable fields.

The Department of Linguistics offers a cross-disciplinary liberal arts major in linguistics leading to the Bachelor of Arts degree, a modified liberal arts major in linguistics with a concentration in computer and information science, and a minor in linguistics.

MAJOR REQUIREMENTS

1. 32 credits in linguistic courses to include LIN 301, 403 and 404. Only 12 of these credits may be in ALS courses.
2. 8 credits in a cognate area - anthropology, computer science and engineering, English, modern languages, philosophy, psychology, sociology or communication arts.
3. Either: (a) one year of a foreign language study or demonstrated first-year proficiency or one year of American Sign Language, or (b) two semesters of LIN 410 Studies in the Structure of a Language, one Indo-European and one non-Indo-European.

MAJOR WITH COMPUTER SCIENCE AND ENGINEERING MINOR

1. 24 credits in linguistics courses to include LIN 301, 403, 404. Only 8 of these credits may be in ALS courses.
2. 16 credits in CSE, including CSE 125, 220 and 335, and one elective.
3. PHL 370.

MINOR REQUIREMENTS

Twenty credits in linguistics courses, to include:

1. ALS 176 or one 200-level LIN course.
2. LIN 301
3. At least 12 credits at the 300-or 400-levels.
4. At least 4 credits at the 400-level.

COURSE DESCRIPTIONS

APPLIED LANGUAGE STUDIES

ALS 102 Studies in Vocabulary and Etymology A basic course in vocabulary building. The origin of scientific and literary terms; foreign phrases in current use. Course not applicable to LIN programs.

ALS 176 The Humanity of Language An introduction to the interrelationships of language and other subsystems. Linguistic knowledge, the child's acquisition of language, sound and writing systems.

ALS 328 Theory and Practice in Language Testing Prerequisite: LIN 301.

ALS 334 Language Development in Children Language acquisition in normal and abnormal children: stages of the acquisition process, the role of environment. Prerequisite: ALS 176 or one LIN course.

ALS 335 Psycholinguistics The psychology of language, the accommodation between the cognitive and physical structure of humans and the structure of language. Prerequisite: One course in ALS or LIN.

ALS 340 The Biology of Language Animal communication and the evolution of man's capacity for language, development of language in normal and abnormal children, and genetic aspects of language. Prerequisite: ALS 176 or one LIN course.

ALS 360 Neurolinguistics The neurology of language: essentials of neuroanatomy; neurological mechanisms underlying language; aphasia and kindred disorders of speech. Prerequisite: ALS 176 or one LIN course.

ALS 373 Ethnography of Communication The systematic description of the interaction of linguistic form, participants, setting and modes of interaction. Prerequisite: One LIN or ALS course or AN 102 or SOC 100.

ALS 374 Cross-Cultural Communication A theoretical and practical examination of the role of language and nonverbal modes in intercultural communication. Prerequisite: One LIN or ALS course.

ALS 375 Language and Culture Language viewed as cultural behavior, its system, acquisition and use; its relation to history, attitudes and behavior. Prerequisite: One LIN or ALS course or AN 102.

ALS 376 Sociolinguistics Language in its social context; intrasocietal variation; social evaluation of language varieties as an influence in language change. Prerequisite: One LIN or ALS or SOC course.

ALS 420 Linguistics and Reading Prerequisite: LIN 310.

ALS 428 The Teaching of English as a Second Language Prerequisite: LIN 301.

ALS 429 Practicum Prerequisite: ALS 428.

LINGUISTICS

115 Natural and Artificial Languages A study of the similarities and differences among the languages of men, beasts and machines. Includes general characteristics of communication, human linguistic abilities, computer languages and human/computer interfaces.

204 Syntax An introduction to the basic principles of morphological and syntactic structure with emphasis on modern American English.

207 Semantics The study of meaning, which involves the relation between speaker, the language and the real, or imagined, world.

300 Topics in Linguistics

301 Linguistic Structures An introduction to synchronic linguistic analysis, with structural problems in natural languages. Prerequisite: ALS 176 or one 200-level LIN course.

302 Historical Linguistics Diachronic linguistic analysis: language change, dialect geography, establishment of geneological relationships, the reconstruction of earlier stages of languages. Prerequisite: 301.

303 Sound Patterns of American English Prerequisite: 301.

315 Computer Parsing of Natural Languages An examination of the syntactic and semantic properties of natural language and a survey of the techniques for computer parsing. Prerequisite: 115 or ALS 176 and CSE 130.

401 Phonetic Theory An introduction to articulatory and acoustic descriptions of spoken language and training in the recognition and production of sounds found in languages other than English. Prerequisite: 301.

403 Phonological Theory A presentation of theory and application of phonological analysis with emphasis on original work. Prerequisite: 301.

404 Syntactic Theory A presentation of theory and application of morphological and syntactic analysis, with emphasis on original work. Prerequisite: 301.

407 Semantic Theory An inquiry into contemporary efforts to formulate and articulate a theory of meaning adequate for the analysis of natural language. Prerequisite: 301.

410 Studies in the Structure of a Language Among the languages for study are French, German, Hindi-Urdu and Sanskrit. Prerequisite: 301.

475 Philosophy of Language

480 Seminar in Linguistics Prerequisite: 301.

THE OHIO STATE UNIVERSITY
LINGUISTICS DEPARTMENT
HUMANITIES

Nothing characterizes the nature of man more than his ability to use language. In linguistics, one studies languages not to read, write, or speak them but to understand how they work, how they change, how children learn them, and how they are used. Concern for the role of languages in human life makes linguistics a humanistic discipline. But, since linguistics is concerned with the systematic explanation of facts about language, it is also a science.

The undergraduate program in linguistics permits a student to combine in a single field a broad spectrum of humanistic and scientific interests, and to develop his/her analytic skills in depth. The student is encouraged to explore with faculty the many relationships of linguistics with other fields in order to discover the optimal program for his/her individual goals. The student is encouraged to broaden his/her education in languages and other related fields. Overspecialization in linguistics is discouraged for the student contemplating graduate study in the field, for it is very difficult to broaden one's background after the undergraduate level.

MAJOR REQUIREMENTS

The major requirement in linguistics is 40 hours of courses in the following three categories:

1. Basic linguistics (25 hours): 600, 601, 602.01, 603.01, and 611.

2. Foreign language study (5 hours): The requirement is intended to be equivalent to 25 hours; however, 20 hours of this is normally satisfied by fulfilling the foreign language requirement of the Liberal Arts Core. The remaining five hours should be in courses beyond the level of 104. In addition, the department recommends some study of a language that is not Romance, Germanic, Slavic, or Greek.

3. Linguistics or related area courses (10 hours): These courses are chosen in consultation with the student's advisor.

MINOR REQUIREMENTS

A minor in linguistics is very useful for students majoring in a foreign language or English, for the general analytic methods of linguistics can help a student gain a deeper understanding of the sound system, vocabulary, grammar and history of the language of his/her major and how these differ from and are similar to other languages of the world. But a minor in linguistics is also relevant for students majoring in psychology, sociology, anthropology, and communication, since the study of linguistic behavior is a concern of these disciplines as well. Finally, a minor in linguistics may be of importance to the philosophy major with an interest in computational linguistics and artificial intelligence, or to any student of an analytic frame of mind who is fascinated with some aspect of language.

A minor in linguistics consists of 25 hours chosen as follows:

1. Two courses from the following: 201, 203, 230, 265, 271, 285;
2. 601;
3. Two courses from the following: 600, 602.01, 603.01, 611.

Alternatively, one or tow additional courses from group three may be substituted for one or two of the courses of group one. Other substitutions of advanced linguistics courses (600 or above) may be made with the approval of the linguistics undergraduate major advisor.

COURSE DESCRIPTIONS

201 Introduction to Language A survey of language as a system of human communication; topics include meaning, language structure, sound systems, language change and acquisition, language in society.

203 Language Differences and Language Universals Differences in sound systems, word structure, and grammar: illustrations from 'foreign accents'; language types; universal principles of structure. Prerequisite: 201, English 110 or 111.

230 Language and the Sexes Types of sex differentiation in different languages and their social and symbolic consequences. Prerequisite: English 110 or 111.

265 Language, Thought, and Culture Investigation of the role of language in social behavior and of the interrelationships between language, culture, and patterns of thought, including Whorf's linguistic relativity hypothesis.

271 Elements of Psycholinguistics Linguistics and the structure, acquisition, function, and malfunction of language. Prerequisite: 201, English 110 or 111.

285 Language Change and Development Survey of the kinds of linguistic change; discussion of the external influences (social, cultural, political, etc.) that affect the historical development of languages.

294 Group Studies in Linguistics Introductory topics in linguistics. Prerequisite: 201.

600 Phonetics Principles of articulatory phonetics, with some discussion of acoustic phonetics; practice in the production, recognition, and transcription of sounds in various languages of the world. Prerequisite: 601, concurrent registration in 601,

or an equivalent course in linguistics or phonetics.

601 Introduction to Linguistics

602 Introduction to Syntax

602.01 Introduction to Syntax I Prerequisite: 601.

602.02 Introduction to Syntax II Prerequisite: 602.01. This a five credit lecture-discussion course open to advanced undergraduates and to graduate students. The course extends over two quarters.

603 Introduction to Phonology Introduction to phonological analysis and the principles governing the structure, acquisition, and change of phonological systems; survey of major phonological theories.

603.01 Introduction to Phonology I This is a five credit course with five hours of lecture of discussion of exercises. Prerequisite: 600 or 601.

603.02 Introduction to Phonology II This course provides additional examples of the topics, principles, and methods presented in 603.01. Prerequisite: 603.01.

609 Morphology An introduction to the grammatical and phonological analysis or words. Prerequisite: 601.

611 Introduction to Historical Linguistics Introduction to the methods and principles of historical linguistics. Prerequisite: 601 and 603.01.

Sanskrit 621 Elementary Sanskrit(Sanskrit I) Introduction to Indo-European, Indic, and Sanskrit; reading of introductory texts.

Sanskrit 622 Classical Sanskrit(Sanskrit II) Prerequisite: 621.

623 Topics in Indic Linguistics Prerequisite: 622.

650 Field Methods in Linguistics

650.01 Field Methods I Methodology for determining the phonological system of a previously unknown language through the use of a native informant. Prerequisite: 600.

650.02 Field Methods II Methodology for determining the morphological system of a previously unknown language through the use of a native informant. Prerequisite: 650.01.

661 Sociolinguistics Description and explanation of the interaction between linguistic and social variable in language variation and use. Prerequisite: 601.

671 Psycholinguistics The contribution of linguistic theory to the study of the acquisition, maturation and functioning of language skills. Prerequisite: 601 and either (a) 602.02, 603.02, or (b) background in cognitive psychology.

672 Language Description Informant techniques and (if available) textbooks and published linguistic analysis are employed in analyzing and describing a language. Prerequisite: 601.

673 History of Linguistics Historical survey of views on language examination of linguistic thought in historical periods, or of writings on single topics in diverse periods and traditions. Prerequisite: 601.

681 Algebraic Linguistics Prerequisite: 601.

683 Linguistic Semantics

683.01 Introduction to Linguistic Semantics Important problems and methods of analysis in linguistic semantics and pragmatics; use of formal logic and semantic model theory in analyzing natural languages. Prerequisite: 681 or equivalent knowledge of logic and set theory.

683.02 Montague Grammar Syntactic and model-theoretic semantic analysis of natural languages described by Richard Montague in 'The Proper Treatment of Quantification in Ordinary English.' Prerequisite: 681 or 683.01 or a course in symbolic logic.

685 Languages in Contact Prerequisite: 601.

695 Seminar in Anthropological Linguistics The purpose of 695 is to provide students with the opportunity to pursue special problems connected with language and culture. Prerequisite: Anthropology 675; Linguistic 601.

OHIO UNIVERSITY AT ATHENS
LINGUISTICS DEPARTMENT
ARTS AND SCIENCES

MAJOR REQUIREMENTS

The requirements for a major in linguistics consist of 43 credit hours beyond 270; 33 hours must be in core linguistic courses, and 10 hours are to be chosen from other linguistic courses, with these courses clustered to form a concentration. Possible concentrations include teaching English as a second language, the use of computers in language teaching, sociolinguistics, psycholinguistics, and theoretical linguistics. In addition, courses in other departments in the social sciences, humanities, and communications will be recommended as external electives. Knowledge of a foreign language equivalent to two years of college-level study is required; study of a second foreign language is recommended. Transfer of credits from other programs or from other departments at Ohio University will be accepted upon approval of the department chair.

MINOR REQUIREMENTS

A minor in Linguistics requires a minimum of 25 hours, with at least two courses at the 400 level. Areas of specialization include general linguistics, sociolinguistics, and English as a second language.

COURSE DESCRIPTIONS

270 The Nature of Language The objective of this class is to introduce students to the nature of human language and to show, in a non-technical way, something of what linguists and other language specialists have discovered about it. Some of the topics discussed are the sound patterns of language, the structure of words and sentences, the nature of meaning, the child's acquisition of language, the interaction of language and culture, the ways the languages change, and the ways in which the various languages of the world are alike and different.

275 Introduction to Language and Culture This course focuses on the similarities and differences of language behavior in a variety of cultural contexts.

280 Language in America Analysis of similarities and differences of language behavior in America.

350 Introduction to General Linguistics The emphasis is on a technical introduction to the devices of language description. Students will learn the basic methodology of linguistic analysis and write formal descriptive statements of the phonological, morphological, syntactic, and semantic subsystems of language. They will also receive an introduction to historical linguistics, social dialectology, field methods, etc., as well as to related areas such as language teaching, psycholinguistics, speech pathology, language acquisition, discourse analysis, and anthropological linguistics.

370 Introduction to Psycholinguistics Study of linguistic behavior and psychological mechanisms responsible for it.

390 The Language of Women and Men American speech as used by women and men in terms of linguistic and social factors.

395 Introduction to Area Linguistics Investigation of linguistic characteristics of specific group or subgroup of languages within Malayo-Polynesian or African families.

420S Linguistics and Semiotics The analysis and interpretation of cultural sign systems in relation to linguistic theory and methodology.

440 Introduction to Bilingualism This course introduces students to basic aspects of bilingual education, the law governing it, and its sociological, linguistic, and educational perspectives.

445 Instructional Materials in Bilingualism Creation and analysis of teaching materials in bilingual education.

451 Computers for Language Teaching I Introduction to uses of computers for language teaching, software selection, and creation of supplementary computer-assisted language learning.

452 Computers for Language Teaching II Creation of CALL materials using authoring packages, authoring languages, or BASIC programming language.

453 Computers for Language Teaching III Development of CALL materials using speech synthesizer, interactive audio tape, video tape, or video disc player.

460 Phonology I This is an introductory course in analysis of the sound systems of natural languages, the first half of which is spent on articulatory phonetics. Mastery of the recognition, production, and transcription of speech sounds is to be achieved through practice in class and in the language laboratory. The second half deals with classical phonemic theory and will involve considerable problem solving, using a wide variety of language. There will also be a brief treatment of distinctive feature analysis.

470 Syntax I This course is the first part of an introduction to the theory and application of generative transformational syntax. It provides students with insights into the underlying principles of syntactical description, a practical ability to write syntactic description, and an understanding of syntactical arguments.

475 Theories of Language Learning Introduction to theories of first and second language acquisition and their implication for language teaching.

480 TEFL Theory and Methodology This course is an introduction to the basic techniques and methods of teaching English to speakers of other languages. Emphasis is placed on both the theoretical and practical issues involved in teaching the various language skills, grammar, listening comprehension, etc.

482 Materials in TEFL The class is designed to provide the students with theoretical knowledge necessary to create sound teaching materials in TEFL and also to allow these students to create their own material. The class will consist both of lectures on material development and practical evaluation of materials developed by members of the class.

485 Historical Linguistics The study of genealogical and typological classification, methods of historical analysis, and change in language systems.

490 Sociolinguistics I This course is a survey of the basic approaches to sociolinguistic research and methodology in the study of language varieties (dialects, codes, registers, styles) and their functions in social interaction. Implications for education policy, TESL, and language planning will also be discussed.

491 Sociolinguistics I Introduction to relationships between interlocking systems of language and social grouping.

PENNSYLVANIA STATE UNIVERSITY
LINGUISTICS PROGRAM
DEPT. OF PSYCHOLOGY
COLLEGE OF LIBERAL ARTS

The interdisciplinary major for students interested in linguistics is offered by the Linguistics program with the cooperation of the Departments of Classical Languages; English; French; German; Philosophy; Psychology; Slavic Languages; Spanish, Italian, Portuguese; and Speech Communication. Within the major students may select the Applied Linguistics option, the Foreign Language option, or the General Linguistics option.

MAJOR REQUIREMENTS

Prescribed Courses (15 credits): LIN 100, 102, 220, 400, 403.

21 Credits From One of the Following Options:

GENERAL LINGUISTICS OPTION

Select an additional 21 credits from the program offerings and related course offerings in consultation with the director.

APPLIED LINGUISTICS OPTION

Prescribed courses (6 credits): LIN 448, 482.

Supporting courses and related areas (15 credits):

Select 3 credits from program offerings.

Select a coherent set of 12 credits in a related area such as communication disorders, speech communication (ESL), computer science, or English, chosen in consultation with the director.

FOREIGN LANGUAGE OPTION

Supporting courses and related areas (21 credits):

Select an additional 6 credits from program offerings.

Select 15 credits from (a) or (b) in one foreign language beyond the 12 credit level:

a. 9 credits in approved linguistic analysis courses (phonology, syntax, semantics, history, and structure of language) and 6 credits in approved language skill courses

b. 9 credits in approved language skill courses and 6 credits in approved linguistic analysis.

MINOR REQUIREMENTS

Students must take LIN 100, 102, 400, 403 and an additional 6 credits from program offerings chosen in consultation with the director for a total of 18 credits.

COURSE DESCRIPTIONS

001 Introduction to Language A non-technical introduction to the study of human language, and its role in human interaction.

010 Introduction to Linguistics An introduction to the assumptions, principles, and methods of modern linguistics; emphasis on analysis and problem-solving.

100 Foundations of Linguistics Systematic study of linguistic structures in a variety of the world's languages.

102 Introduction to Historical Linguistics Language change and linguistic reconstruction; general procedures and techniques used in comparative linguistics. Prerequisite: 010 or 100.

220 Introduction to Psycholinguistics The learning of language; language development in the child; meaning as a problem for psychology. Prerequisite: PSY 002.

400 Syntactic Theory I Principles of grammatical analysis in the framework of generative-transformational grammar. Prerequisite: 100.

401 Introduction to Linguistic Theory

403 Phonological Analysis Introduction to the analysis of sound systems of natural languages. Practical phonetics and structural analysis of a natural language. Prerequisite: 100.

404 Generative Phonology Consideration of techniques and problems involved in description of phonological components of transformational grammars. Prerequisite: 403.

413 Experimental Linguistics Linguistic acoustic theory. Experimental verification of discrete components of language on acoustical and perceptual levels and their articulatory correlates. Prerequisite: SPCOM 210 or 410.

420 Advanced Psycholinguistics Linguistic and psychological theory. Development of language. Prerequisite: 400.

448 Introduction to Sociolinguistics Consideration of issues in the study of language in its sociocultural context; quantitative analysis of social dialects and speech styles. Prerequisite: 400.

449 Introduction to Semantics Consideration of various proposals regarding the nature of the semantic component of transformational grammars. The relationship of semantics and syntax. Prerequisite: 400.

482 Introduction to Applied Linguistics Introduction to the application of linguistic procedures to other fields of study. Prerequisite: 100.

493 Informant Work Practical phonological analysis of an unfamiliar language.

POMONA and PITZER COLLEGES
LINGUISTICS PROGRAM
DEPT. OF MODERN LANG. AND LITERATURES

Linguistics is the scientific study of language in all its variety. One of the paradoxes about language is that it is incredibly systematic and at the same time it is immensely varied. The paradox is resolved by the discovery that the variety is composed of a vast number of interacting systems. These systems can be studied separately to a certain extent, though it is always necessary to keep in mind the larger and more complex whole when studying language and the labels under which they are studied in linguistics are: phonetics, the study of speech sounds; phonology, the study of the communicative function of speech sounds in a particular language; syntax, the study of the meaningful units of a language and how they combine into sentences; semantics, the study of the meaning of the words of a language and the meaning of combinations of words. The three divisions of linguistics, phonology, syntax, and semantics, are fundamental to any study of language. Although there are other ways in which language can be studied, it is impossible to study linguistics without dealing with at least one of these aspects.

Linguistics, the scientific study of language, is relevant to any part of human experience that depends heavily upon language. Thus, a knowledge of linguistics is rapidly becoming an asset in such varied fields as anthropology, psychology, sociology, philosophy, literature, and computer science. Linguistics also has many practical applications in psychology, psychiatry, speech therapy, foreign language teaching, elementary school education, advertising, and the legal system.

A coordinated intercollegiate program is offered under the administration of the Department of Modern Languages and Literatures. Intermediate and advanced courses are offered on a two-year rotation. Students who want to concentrate in linguistics should plan their programs carefully to take advantage of the alternation of courses.

MAJOR REQUIREMENTS

1. Linguistics 10, 11; and 12 or 101, and the three core courses 104, 105, and 106.
2. Two other upper-division linguistics courses.
3. At least two years of one foreign language and one year of a second foreign language, or two years of a non-European language, or the equivalent in demonstrated competence.
4. The senior seminar in linguistics(190).
5. A comprehensive examination. (A senior thesis may be invited instead.)

COURSE DESCRIPTIONS

10 Introduction to the Study of Language A relatively non-technical course about the nature of language.

11 The Structure of English

12 Languages of the World Exploration of the richness and diversity of linguistics systems and their conceptual structures across the world. Prerequisite: Ling. 10.

50 Introduction to Linguistic Analysis: Descriptive

101 Language Change and Language Variation An examination of how languages change over time and the possible causes of such changes. Prerequisite: Ling 11 or 12.

103 Phonetics An introduction to the general principles of articulatory and acoustic phonetics, including distinctive feature theory and the description of prosodic features. Prerequisite: Linguistics 50.

104 Phonetics and Phonology An introduction to the principles of modern generative phonology; including the general principles of articulatory and acoustic phonetics, and distinctive feature theory. Prerequisite: 11 or 12.

105 Syntax An introduction to modern theories of syntax dealing with the Chomskyan revolution in theoretical linguistics and its later developments.

108 Phonology An introduction to the principles of modern generative phonology. Prerequisite: Linguistics 50.

109 Introduction to linguistics: Historical An investigation into linguistic change and language families. The comparative method and the reconstruction of proto-languages. Language change in a social context in contemporary society.

110 Language in Society Systematic methods for the study of language in the speech community. Techniques for the observation, recording, elicitation, and analysis of natural speech. The social significance of language variation. The nature of standard languages, creoles, and pidgins. The problems of bilingualism and multilingualism. Recommended prerequisite: Linguistics 10 or 50.

111 Language and Culture The relation of language to thought and its role in setting and limiting human experience. How language influences world-view and social attitudes. Prerequisite: Linguistics 10 or 50.

114 Artificial Intelligence Topics in artificial intelligence; knowledge representation in semantic nets, frames, conceptual dependencies, and prototypes; expert systems, natural language understanding; data base query, robots, and vision.

115 Natural Language and the Computer Students learn to program in LISP. Programs developed to do text editing, phrasing of every day English, grammaticality testing and building a knowledge base. Also, all aspects of string processing.

121 Learning and Teaching a Second Language Overview of recent theories of second language acquisition and teaching methodology. Prerequisite: Linguistics 10.

123 The Acquisition of Language Theories of language acquisition will be examined in the light of recent developments in linguistic theory.

125 Linguistic Field Methods Aspects of a language unfamiliar to the members of the class will be analyzed from data elicited in class form a speaker of the language. Several analytical procedures will be examined.

130 History of the German Language Prerequisite: German 51.

135 Romance Philology History of the Romance Languages: Latin, French, Spanish, Portuguese, Italian, and Rumanian, and their development into the modern national languages of today.

137 History of the English Language

140 Dialectology Seminar on the study of regional variation in language with emphasis on methodology and identification of dialect boundaries. Prerequisite: one course in linguistics.

145 Semantics An introduction to the study of meaning, including such topics as signification, reference, semantic fields, and semantic relations. Prerequisite: Linguistics 105.

152 Research and the Ethnography of Speaking Relationships between language, social context, and individual creativity.

153 Philosophy of Language The nature of language, and its relationship to philosophical problems.

157 Pragmatics of Language A study of how to do things with words: speech acts, deixis, conversational implicatures, presuppositions, and discourse analysis.

186 Seminar in Psychology of Language and Thought Prerequisite: Psychology 160 or 162.

193 Comprehensive Examination

195 Words and Music: Models and Methods in the Study of Performance
Similarities and differences between language and music as systems of human expression and communication.

PRINCETON UNIVERSITY
LINGUISTICS PROGRAM
COUNCIL OF THE HUMANITIES

Linguistics is the study of distinctive characteristics of human language and the cognitive capacities of language users from a variety of perspectives. Students in the Program in Linguistics acquire the basic research tools for the formal study of language and language related issues. Although there is the possibility of an independent major in linguistics, participants in the program generally satisfy requirements of their chosen departmental major and develop a course of study as outlined below.

MINOR REQUIREMENTS

The program of study (the minor) will be approved by the program adviser and should complement the concentration (the major) in the student's department. It will include completion of the following requirements:

1. Satisfactory completion of LIN 213 or an equivalent LIN course by the end of fall term of the junior year.
2. Satisfactory completion of four additional courses from the list of linguistics courses and related courses below. These four courses must include at least two core courses.
3. Completion of a senior thesis in an area of the study of language. The specific topic should satisfy as well the requirement of the student's department.

CORE COURSES

213 Introduction to Language and Linguistics Introduction to the scientific study and analysis of human language.

214 Historical Linguistics Introduction to the history of the English language; special attention to the development of sound changes and rise of dialects.

301 Phonetics and Phonology Introduction to the analysis of sound patterns in human language.

302 Syntax Introduction to methods of syntactic analysis of natural language. Foundations of a theory of generative grammar.

303 Linguistic Semantics An introduction to central issues and leading theories of linguistic semantics for natural languages.

304 Social and Geographical Variation in Language A survey of linguistic variation in its geographic, social, and interactive dimensions.

412 Advanced Syntax Development of a modular theory of grammar involving subtheories of case, government, predicate/argument structure, and binding.

RELATED COURSES

ANTH 312 Language and Culture

CSI 427 Artificial Intelligence

E ASIAN ST 444 Introduction to Chinese Linguistics

E ASIAN ST 446 History of the Chinese Language

E ASIAN ST 447 Introduction to Japanese Linguistics

ENG 301 The Old English Period

PHIL 312 Intermediate Logic

PHIL 317 Philosophy of Language

PHIL 324 Philosophical Issues in Linguistic Theory

PSY 309 Psychology of Language

ROMANCE LL 312 Intro. to Romance Linguistics and Literary Theory

SLAVIC LL 405 Topics in Modern Russian and Slavic Linguistics

SLAVIC LL 406 Topics in Historical Russian and Slavic Linguistics

PURDUE UNIVERSITY
LINGUISTICS PROGRAM
SCHOOL OF HUMANITIES, SOCIAL SCIENCES AND EDUCATION

This new program introduces the student to linguistics, the scientific study of language as a uniquely human phenomenon, with an ambitious purpose of gaining some insight into the way the mind works. The central core of the program consists of a small number of courses which deal systematically with various levels of linguistics structure--the sound, the word, the sentence, the meaning. Numerous electives in the program investigate language-related phenomena from various points of view and are taught, along with linguists, by speech therapists, experts in communication, education, English, foreign languages, philosophers, psychologists, sociologists, and anthropologists.

Many academic disciplines in the humanities and in the sciences have recently realized that many of their problems are language-related, and they are now turning to linguistics for answers. A major in linguistics provides one with a sound basis for a career in a large variety of fields in the academic world, industry, or services.

MAJOR REQUIREMENTS

1. Courses in Linguistic Theory and General Linguistics:
    a. AUSL 227 or ASUL 580 or ENGL 506;
    b. AUS 301; AUSL 582; AUSL 585; AUSL 588 or ENGL 596
2. Courses in Linguistics of a Particular Languages (Choose one 2-course sequence):
    a. ENGL 327; ENGL 328
    b. FR 501; FR 505
    c. GER 501; GER 505
    d. RUSS 502; RUSS 505
    e. SPAN 505; SPAN 608
    f. ENGL 510; ENGL 512
3. One course in an uncommonly taught language
4. Two or three course in linguistics and adjacent disciplines

5. One or two courses in linguistic applications.

Course Descriptions

227 Elements of Linguistics (ENGL 227) Study of the background of American English sounds and writing systems, grammatical approaches, and social and regional language differences.

381 Linguistic Analysis Both diachronic and synchronic approaches will be used in this course. Prerequisite: Some familiarity with linguistics.

580 Linguistic Science

582 Syntax I Explication and analysis of the standard transformational model of the syntactic component in the theory of grammar.

583 Syntax II Prerequisite: AUSL 582.

585 Phonology I: Descriptive Analysis A data-oriented course designed to familiarize the student with the dynamic possibilities of phonological systems. Prerequisite: AUS 301 and AUSL 580.

586 Phonology II: Explanatory Theory Prerequisite: AUSL 585.

588 Semantics Emphasis on the relationship of meaning to syntax.

589 Introduction to Semiotics (ANTH 519, COM 507, ENGL 570, FLL 577) The study of language, literatures, and other systems of human communication includes a wide range of phenomena which can be brought together by means of a general theory of signs.

596 Semantics Introduction to basic ideas, methods, and theories of semantics.

QUEENS COLLEGE--CITY UNIVERSITY OF NEW YORK
LINGUISTICS DEPARTMENT
ARTS DIVISION

Linguistics is the scientific or humanistic study of language in any of its forms or aspects. A discipline with a rich and centuries-old tradition, linguistics is today a diverse and broad-ranging area of inquiry and encompasses and touches upon many other fields of human knowledge. Modern linguistics is aimed in two principal directions: the general (or theoretical) and the applied. At Queens College we offer programs for undergraduate study which include both areas and allow the student to choose a specialization in either field or, for the nonmajor, a sequence of enriching courses.

Linguistics is a large discipline. There are nearly 200 departments or programs in linguistics in American colleges and universities. More than a dozen journals devoted to either theoretical or applied linguistics are published in this country. Just in New York City there are four thriving linguistics departments (Queens College, CUNY Graduate Center, NYU and Columbia) and other colleges have interdisciplinary studies offering a major in linguistics (e.g., Brooklyn, Hunter and Lehman Colleges). At Queens College there are now about 60 undergraduate majors and approximately 90 students in the masters program.

Employment opportunities in linguistics are somewhat better than in many other academic disciplines. This is due in part to the growth of applied linguistics, which in turn is caused by an increase in the demand for teachers of English to speakers of other languages; the growth of applied linguistics has the indirect effect of simulating demand for people trained in general and theoretical linguistics as well. Furthermore, there is increasing awareness of the importance of theoretical linguistics to disciplines such as psychology, sociology, education, neuroscience, and others. Accordingly, students choosing either the general or applied track will find rich opportunities upon graduation.

MAJOR REQUIREMENTS

GENERAL LINGUISTICS

Required courses are 101; 202; 210; 211; 221; 312; 322 or 323; either 250 or 352; 331; and four other courses in linguistics or related fields.

APPLIED LINGUISTICS

Students interested in teaching ESL or Literacy at either the elementary (grades K-6) or secondary (grades 7-12) level may major in Linguistics. Required courses are 101; 117; 202; 206; 210; 211; 221; 240; 341; 342; and two other courses in linguistics or related fields.

COURSE DESCRIPTIONS

101 Introduction to Language A survey of the scientific study of human language; structure, language and society, languages of the world, language change, language and thought, and the philosophy of language.

116 The Structure of English Words

117 Syntactic Structure of English

151 English Around the World Traces the development of English as a world language and treats the following issues: (1) Why and how did English spread? (2) How has the spread affected English? (3) What has been the effect on language policies of other countries? (4) What are the attitudes in various countries towards English? The basic tools of sociolinguistic research will be demonstrated in approaching these questions.

191 Special Problems

202 Introduction to Linguistic Theory An introduction to formal properties of syntax (principles of sentence formation) and of phonology (the sound structure of language). The place of language within a general framework of human cognition (mental processes). (The basic skills and concepts needed for more advanced courses in theoretical linguistics.) Prerequisite: 101.

203 Language of the World A survey of the major language families and their structures. (Classification of languages from the perspective of historical, cultural and typological relationship. Types of language use within linguistic communities and beyond.) Prerequisite: 101.

204 Writing Systems A survey of the types of writing systems which have been developed throughout human history. The decipherment of unknown scripts. (Relationship of written symbols to the sound systems of languages. The development of writing: Chinese characters, Egyptian hieroglyphics, cuneiform. The spread of the alphabet.) Prerequisite: 101.

205 Dialectology and Sociolinguistics Theory and results of dialect studies; social dialects; style; bilingualism; social aspects of language and the role of language in society. Prerequisite: 101.

206 Bilingualism An introduction to the psychological and social ramifications of bilingualism. (Study of theories and application derived through sociolinguistics and psycholinguistic research; relationship to social, educational and linguistic issues.) Prerequisite: 101

210 General Phonetics Phonetic theories. Practice in hearing, producing, and transcribing human speech sounds. (The physiological and acoustic properties of speech; practice in English and other languages.)Prerequisite: 101.

211 Phonological Analysis An introduction to the analysis of sound patterns in a variety of languages, including English. Prerequisites: 101; 210.

221 Syntactic Analysis An introduction to the analysis of sentence structures. Examples drawn primarily, although not exclusively, from English. (Generative syntactic theory.) Prerequisite: 202

240 Introduction to English as a Second Language An introduction to the theory and methods of teaching English to speakers of other languages. (Language acquisition; social, cultural and cognitive variables in language learning; contrastive analysis; discourse analysis; error analysis.) Prerequisite: 202.

250 Structure of a Language Synchronic and diachronic analysis of one or more languages chosen by the instructor. Prerequisite: 202.

254 History of Linguistics A survey of ancient, medieval and modern linguistic theories and approaches, with emphasis on the nineteenth and twentieth centuries. Prerequisite: 202.

291 Special Problems

312 Advanced Phonology Prerequisite: 211. Generative phonology.

322 Advanced Syntax Detailed work in grammatical theory and practice with emphasis on the generative transformational model. Prerequisite: 221

323 Linguistic Analysis Intensive practice in applying the techniques learned in 101, 211 and 221. Pre-field methods. Prerequisites: 211 and 221.

331 Introduction to Historical and Comparative Linguistics Diachronic linguistics, with emphasis on the Indo-European family. Prerequisite: 101.

332 Advanced Diachronic Linguistics Selected topics. Prerequisite: 331.

333 Advanced Topics in Sociolinguistics Application of linguistic theory to current issues in regional and social dialects. Prerequisite: 205.

341 Methods and Materials of English as a Second Language Continuation of 240. (Practical and working knowledge of factors related to teaching ESL. Construction of lesson plans; classroom techniques. Course involves participation in weekly tutoring sessions.) Prerequisite: 240.

342 Error Analysis An analysis of interference and interlanguage errors for the purpose of error correction in teaching and understanding the second language acquisition process. Prerequisites: 117 or 221; 210; 240.

343 Practicum in Teaching English as a Second Language Supervised observation and experience in classes where adults are taught the English language. Prerequisites: 341; must be taken with 383.

352 Field Methods Phonological and grammatical analysis of a language using a native speaker. Prerequisite: Student must have either taken 211 and 221 or taken one of these and registered in the other simultaneously with 352.

353 Semantics Modern theories and approaches to lexical and semantic analysis. Prerequisite: 221.

355 Theoretical Issues in Linguistics Prerequisite: 211 and 221.

383 Seminar in Teaching English as a Second Language Advanced topics in the teaching of English to speakers of other languages. Prerequisite: must be taken with 343.

391 Special Problems

392 Tutorial

RICE UNIVERSITY
LINGUISTICS DEPARTMENT
SCHOOL OF HUMANITIES

As language plays an important role throughout human life, linguistics is by its nature an interdisciplinary field. The undergraduate major therefore includes at least two non-linguistic courses, chosen in accordance with an area of concentration. The major may be undertaken with any of three areas of concentration: Cognitive Science, Language, Textual Semiotics. All majors are required to take at least eight courses in linguistics, including at least the three core courses: 300, 301, 302. The remaining requirements depend on the student's area of concentration, as follows:

Cognitive Science Concentration Besides the three core courses, the eight required courses in linguistics must include at least two of the following: 306, 315, 317, 411. In addition, the major must include at least two courses in cognitive studies in other departments, chosen in consultation with the undergraduate adviser. Appropriate courses in other departments include ANTH 406 (Cognitive Anthropology) and relevant courses in psychology and computer science.

Language Concentration In addition to the eight required courses in linguistics, at least two semesters in a foreign language at the level of 300 or higher and two semesters of another language at the level of 200 or higher. Chinese and Sanskrit are especially recommended.

Textual Semiotics Concentration At least two semesters in a foreign language at the level of 300 or higher and at least two courses in textual semiotics. The latter, which may be counted among the eight required courses in linguistics, may be any two of the following: 396, 414, 420, FRE 491.

COURSE DESCRIPTIONS

200A Language An introduction to the scientific study of language and the methods of linguistic prehistory.

300A/B Linguistic Analysis English and other languages as objects of scientific analysis; phonological structure, morphology, and syntax, semantic structure.

301B Phonology Articulatory phonetics and the analysis of speech; structural patterns which underlie speech sounds. Prerequisite: 300.

302A/B Syntax and Semantics Study of semantic categories and their formal expression in morphological, syntactic, and lexical units and patterns.

305A/B Historical Linguistics The processes of linguistic change and their relationships to social and geographical contexts. Comparative phonology of Latin, Greek, and Sanskrit.

306A Cognitive Linguistics The study of linguistic data as evidence for the structure of the information system which makes it possible for a speaker of a language to speak and understand the language.

312A/B Sociolinguistics

313A/B Language and Culture Investigation of the systematic relations between linguistic form and expression and culture.

315 Information Structures A study of various structures and techniques; relational networks, laws of form, digital logic networks. Computer data structures, human cognitive structures.

317 Computational Linguistics

353 Philosophy of Language Philosophical investigation of relations among language, thought, and reality.

394A/B Structure of the English Language

395A/B History of the English Language

396A/B Language and Philosophy in Literature Readings and discussions of issues in the philosophy of language: representation, metaphor, structure, speech.

403B Modern linguistic Theory Survey of selected theories of language from Saussure to present.

405A/B Applied Linguistics Relation of structural linguistics to the teaching of modern languages. Prerequisite: 200, 300.

407A Field Techniques and the Analysis of Natural Language Techniques and practice in the observation, analysis, and recording of a human language.

409A/B Special Topics in Linguistics

411A/B Neurolinguistics: Language and the Brain Organization of the brain; localization of speech, language, and memory functions; hemisphere dominance; pathologies of speech and language associated with brain damage.

414A/B Hermeneutics and Linguistic Anthropology Application of linguistic theory and method in the analysis of cultural materials.

420A/B Studies in Literary Semiotics Application of semiotic models to the study of literature.

423A/B The Structure of Spanish

424A/B Studies in Hispanic Linguistics

425A/B Romance Linguistics

432A/B German Applied Linguistics and Teaching Methodology Contrastive study of German and English combined with problems in teaching methods.

433A/B Structure of German

434A/B History of the German Language

443A/B Studies in Chinese Linguistics

494A/B Seminar in the Structure of English

RUTGERS UNIVERSITY
LINGUISTICS PROGRAM
FACULTY OF ARTS

MAJOR REQUIREMENTS

A major in linguistics consists of ten courses of 3 credits each, distributed as follows: (1) five required core courses: 201, 304, 305, 310, and 322; and (2) five additional advanced courses in linguistics or approved related areas, at least two of which must be drawn from among the following: 306, 307, 308, 320, 325, 410, and 430. In addition, two courses each of two languages from different families or branches (completion of 132 level or higher) is required.

MINOR REQUIREMENTS

A minor in linguistics consists of seven courses of 3 credits each, distributed as follows: (1) two required core courses: 201, and 305; (2) two advanced courses from the following: 304, 306, 307, 308, 310, 320, 322, 325, 410, and 430; and (3) three additional advanced courses in linguistics or related areas, at least two of which must be in disciplines other than linguistics and acceptable towards the linguistics major, no more than two of which can be used in the student's major.

APPROVED COURSES

Advanced courses in other disciplines appropriate for satisfaction of major or minor requirements include the following:

013:301 African Linguistics

070:311 Language and Social Diversity

070:312 Culture, Language, and Cognition

070:313 Language Development in Individual and Species

190:421 Indo-European Origins of the Classical Languages

198:452 Formal Languages and Automata

350:310/311 History and Development of the English Language

350:312 Theory of English Grammar

350:409 Seminar: History and Development of the English Language

420:403 History of the French Language

470:318 German Linguistics

560:304 Introduction to Italian Linguistics

730:420 Philosophy of Language

830:351 Psychology of Language

861:451 Introduction to Slavic Linguistics

861:452 Seminar in Slavic Linguistics

940:362 Spanish Phonetics and Phonology

940:363 Hispanic Bilingualism

940:364 Structure of Modern Spanish

940:365 History of Spanish Language

940:366 Hispanic Dialectology

Other courses, including courses offered through the Graduate School-New Brunswick, may be selected in consultation with the director of the linguistics program.

COURSE DESCRIPTIONS

201 Introduction to General Linguistics Theoretical study of language fundamentals; phonological and syntactic description, animal communication systems, child language acquisition.

304 Linguistic Analysis Practice in problem solving; lexical phonological, syntactical, and diachronic analysis. Prerequisite: 201.

305 Syntax Theoretical approaches to syntactic analysis.

306 Introduction to Historical Linguistics Language change, methods of reconstruction, geneological and typological classification of languages. Prerequisite: 201.

307 Introduction to Discourse Analysis Analysis of written and oral discourse, such as narratives and conversation, based on models recently developed in the field of linguistics. Prerequisite: 201.

308 Linguistic Theories Major schools of thought in linguistic theory in the twentieth century; impact of linguistic theories on other disciplines.

310 Phonology Methods and theories of the phonological description of language.

320 Introduction to Romance linguistics The development of the Romance languages: a modern linguistic approach to the study of their structures as compared with English.

322 Semantics Current research in semantic theory with emphasis on the role of semantics in a transformational generative theory.

325 Social Dialectology Introduction to the study of dialect: dialect geography, social and spatial variation, mechanisms of variation.

410 Morphology Introduction to the theory of word structure. Prerequisite: 305.

430 Advanced Syntax Advanced topics and issues in transformational generative syntax, with special emphasis on recent developments in syntactic theory. Prerequisite: 305.

SAN DIEGO STATE UNIVERSITY
LINGUISTICS DEPARTMENT
COLLEGE OF ARTS AND LETTERS

MAJOR REQUIREMENTS

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in this catalog. Students majoring in linguistics must complete a minor in another filed approved by the departmental adviser in linguistics. Recommended fields include anthropology, communicative disorders, ethnic studies, a foreign language, history, journalism, literature, philosophy, psychology, public administration and urban studies, sociology, and speech communication.

A minimum of 24 upper division units is required: at least 15 of these must be in Linguistics (including 521 and 522); a maximum of nine units may be selected from Afro-American Studies 360, 362, 363; American Studies 501; Anthropology 304, 410; Communicative Disorders 305; French 401, 431; German 505, 510; Journalism 509; Philosophy 521, 522, 531; Russian 580, 581; Sociology 422, 424, 440, 557; Spanish 448, 449; Speech Communication 391, 496 (when appropriate), 530, 535.

MINOR REQUIREMENTS

The minor in linguistics consists of a minimum of 15 units, 12 of which must be upper division units and at least 12 of which must be from linguistics. The student must select a specialization from one of the following subject areas. The following courses are appropriate for all subject areas: 101, 420, 520, 521, 522, 524, 551, 552. Linguistics 496 and 499 may be appropriate for any area depending on content.

1. Descriptive and Theoretical Linguistics: 523, 525, 550, 560; Anthropology 510; Philosophy 531.

2. Applied Linguistics: 450, 470, 525, 550, 553; Anthropology 410.

3. Historical Linguistics: 410, 560 (both required).

4. Linguistics and English (recommended for English majors): 410, 450, 470, 525, 550, 560; Anthropology 410.

5. Linguistics and Foreign Languages (recommended for foreign language majors): 410, 450, 550, 553, 560; Anthropology 410.

Courses in the minor may not be counted towards the major, but may be used to satisfy preparation for the major and general education requirements, if applicable.

FOREIGN LANGUAGE REQUIREMENT

Competency equivalent to that which is normally attained through three college semesters of a foreign language with a B (3.0) average, or the equivalent.

WRITING REQUIREMENT

Passing the University Writing Examination or Linguistics 396W, English 305W or 500W with a grade of C (2.0) or better.

CERTIFICATE IN APPLIED LINGUISTICS AND

English as a Second Language (ESL)

The Linguistics Department offers a basic and advanced Certificate in Applied Linguistics and English as a Second Language (ESL). The basic certificate requires 12 units to include either Linguistics 420 or 520, 550, 552, and either 524 or 551. In addition, there is a 15-hour tutoring practicum requirement.

COURSE DESCRIPTIONS

100 English Composition for International Students

101 Introduction to Language Introduction to the principles and practice of modern linguistics as applied to the study of English. Not open to students with credit in upper division linguistics courses.

200 Advanced English for International Students

250 Directed Language Study Directed independent study of a foreign language not offered within the course structure at San Diego State University with the aim of acquiring a basic competency in reading, writing, and grammar. No instruction in speaking or understanding the spoken language is included in this course.

296 Experimental Topics Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296,496,596 courses applicable to a bachelor's degree.

305W Advanced Composition for International Students

396W Writing Proficiency Upper division writing course taken in conjunction with any 500-numbered linguistics course.

410 History of English The history of English and its present-day use.

420 Linguistics and English Principles of linguistics. Structure of Modern English, with attention to sounds and sentence patterns. Psychology of language; language acquisition; sociology of language; study of dialects; language change.

450 Introduction to Teaching English as a Second Language Introduction to English as a second language, bilingual, and foreign language teaching. Basic concepts of linguistics as they apply to teaching second languages. Survey of ESL methodologies and techniques.

452 Child Language Acquisition Principles of child language development. Sounds and grammar in speech of young children. Acquisition of reading and vocabulary. Relationship between cognitive development and language. Development of language in bilinguals. Second language acquisition.

470 Linguistics and Contemporary Issues Systematic linguistics analysis of language modes associated with various ares of contemporary life, using generative transformational methodology as the analytic technique.

496 Experimental Topics in Linguistics

520 Structure of English The structure of modern English including the various approaches to linguistic analysis.

521 Phonology Prerequisite: 420 or 520. Introduction to the theoretical principles of transformational-generative phonology.

522 Syntax Prerequisite: 420 or 520. Introduction to the theoretical principles of transformational-generative syntax.

523 Phonemics and Morphemics The study of procedures for arriving at the phonetic inventory of languages and the structuring of sound units (both linear and intonational) into phonemic systems; the study of morphemic hierarchies and their arrangements in forming words.

524 American Dialectology

525 Semantics and Pragmatics Prerequisite: 101. Advanced semantic theory; systematic analysis of the interaction of sequences of language with real world context in which they are used.

550 Theory and Practice of English as a Second Language Prerequisite: 450 or 420 or 520. The nature of language learning; evaluation of techniques and materials for the teaching of English as a second language.

551 Sociolinguistics (3) I,II Prerequisite: A course in introductory linguistics. Investigation of the correlation of social structure and linguistic behavior.

552 Psycholinguistics (3) I,II Prerequisite: A course in introductory linguistics. Psychological aspects of linguistic behavior.

553 Functional Bilingual Linguistics (3) I,II Prerequisite: 520. Recommended prerequisite: Communicative Disorders 528 and 532. English and Spanish linguistic differences as related to children's second language acquisition; assessment of children's linguistic competence in second language learning through contrastive analysis of English and Spanish phonology, morphology and syntax. Research on current linguistics theories in second language acquisition and in bilingualism.

554 Linguistics and Computers Issues of man-machine communication from a linguistic perspective. Comparison of human language and computer programming language. Aspects of Natural Language Processing and computer simulation of human linguistic abilities. Implications of linguistics for the use of computers.

560 Historical Linguistics Prerequisite: 410 and 520 or 521. Methods and principles used in historical study of language; processes of language change in phonology, morphology, syntax and semantics; linguistics reconstruction; origin of language; language families; development of writing; examples from various language families.

596 Selected Topics in Linguistics Advanced study of selected topics. See Class Schedule for specific content. May be repeated with new content. Limit of nine units of any combination of 296,496,596 courses applicable to a bachelor's degree.

SAN JOSE STATE UNIVERSITY
LINGUISTICS PROGRAM
SCHOOL OF HUMANITIES AND THE ARTS

The Linguistics Program offers a minor designed to provide students with training in the scientific study of language and is aimed at students whose professional competence would be enhanced by a more thorough knowledge of language and linguistics than is provided by their majors. The program also offers an 18 unit certificate in Teaching English to Speakers of Other Languages (TESOL), available to both undergraduate and graduate students. The certificate is designed to meet the needs of individuals desiring formal course preparation and training as classroom teachers of English as a second language but who do not require an M.A. degree. (While the Certificate is approved by the University, it is not to be interpreted as certification or accreditation, or as a credential program approved by the California Department of Education).

MINOR REQUIREMENTS

Core requirements (9 units): LIN 101, 111, 112.

Electives: 6 units of upper division course work, subject to the approval of the Linguistics Program Minor Adviser.

Language Requirement: The first-year college-level courses in a language other than the student's native language or a demonstrated equivalent language background. Courses taken to satisfy this requirement will satisfy other requirements, e.g., where applicable, supporting courses for a major or required courses in a major.

COURSE DESCRIPTIONS

101 Introduction to Linguistics Language as a social and psychological phenomenon. Phonetics, phonology, morphology, transformational syntax, semantics, and historical linguistics.

104 Trends and Practices in Teaching English as a Second Language Prerequisite: 101.

111 Introduction to Linguistic Phonetics Production, recognition, and accepted transcription of speech sounds used in languages. Prerequisite: 101.

112 Introduction to Syntax Constituent structure and grammatical categories; theories of syntactic structure; problems in syntactic analysis. Prerequisite: 101.

121 Applied Linguistics Understanding language learning. Application of linguistic theory to language teaching. Prerequisite: 101.

123 The Nature of Language Origins, structures, and function of language as an instrument of social cohesiveness; influence of language on thought. Prerequisite: Upper division standing.

124 Man-Machine Talk Major strategies in man-machine communication using natural languages. Similarities and differences between natural and artificial languages. Prerequisite: Upper division standing.

161 Psycholinguistics Psychology of language. Child language acquisition, language disorders, representation of language in the brain. Prerequisite: 101.

163 Second Language Acquisition Child and adult second language acquisition; classroom instruction versus natural settings. Prerequisite: 101, 111, 112.

166 Sociolinguistics: Cross-cultural Communication Relationship between language and society; inter and intracultural communication; non-verbal communication. Prerequisite: 101.

171 Languages and Dialects in America Bilingualism, language contact, geographical and social dialects. Prerequisite: 101.

SIMON FRAZER UNIVERSITY
DIVISION OF LINGUISTICS
DEPT. OF LANG., LIT., AND LINGUISTICS.
FACULTY OF ARTS

MAJOR REQUIREMENTS

Lower Division:

LIN 100, 130, 221, 222, and 240.

Upper Division:

LIN 321, 322, 323, 324 and 12 additional credits chosen from 400-series courses in Linguistics, and a further 6 credit hours in upper division Linguistics. Approved substitutes from outside the department may be counted for up to 3 of those credits.

MINOR REQUIREMENTS

Lower Division:

LIN 100, 130, and 9 additional credit hours in 100- and 200-level Linguistics courses.

Upper Division: 9 credits chosen from the 300-series courses in Linguistics, and 6 credits chosen from the 400-series courses in Linguistics.

COURSE DESCRIPTIONS

100 Communication and Language A non-theoretical approach to the structure of language using examples from a variety of languages.

110 The Wonder of Words Study of the structure of words, the change of meaning of words, the change in forms of words.

130 Practical Phonetics

221 Introduction to Phonology The principles of phonological analysis. Prerequisite: 130.

222 Introduction to Syntax The principles of syntactic analysis. Prerequisite: 100.

240 Theory and Analysis in Linguistics A survey of the field of linguistics integrating all facets of linguistic structure and identifying key issues in linguistic inquiry. Prerequisite: 221, 222.

250 Linguistic Aspects of Language Acquisition Introduction to the study of language acquisition from the point of view of linguistic structure. Prerequisite: 100, 130.

260 Language, Culture, and Society An introduction to language in its social and cultural dimensions.

321 Phonology An overview of theoretical principles in phonology. Prerequisite: 221.

322 Syntax The study of sentence structure in language through a survey of constructions found in natural language data together with a consideration of syntactic theory. Prerequisite: 222.

323 Morphology Word structure in natural languages and its relationship to phonological and syntactic levels of grammar. Prerequisite: 221, 222.

324 Semantics The basics of word meaning, including: sense and reference, componential analysis, color and kinship terminology, semantic universals.

360 Linguistics and Language Teaching: Theory Theoretical aspects of second language learning. Prerequisite: 100, 130.

361 Linguistics and Language Teaching: Practice Prerequisite: 360 or concurrent registration therein. Note: familiarity with a language other than English is required.

362 English as a Second Language Prerequisite: 100, 130.

401 Advanced Phonetics Advanced training in speech and sound description and analysis in the impressionistic and instrumental modes. Prerequisite: 130.

403 Advanced Phonology Detailed study of the formulation of phonological theories and their testing with natural language data. Prerequisite: 321.

405 Advanced Syntax In-depth investigation of theoretical frameworks for syntactic description of natural languages.

406 Advanced Semantics Examination of aspects of sentence meaning, including: truth conditions and their derivation from lexical and syntactic information; meaning-changing transformations. Prerequisite: 322, 324.

407 Historical Linguistics The development of languages and language families through time; genetic grouping, comparative method, reconstruction, etymology, universals and language change. Prerequisite: 321, 322, 323.

408 Field Linguistics Prerequisite: 321, 322, 323, 401.

409 Sociolinguistics A systematic approach to the study of linguistic variation in different areal, social, and cultural settings. Prerequisite: 130, 260.

430 Native American Languages Structural and genetic characteristics of Native languages of North America, with special emphasis on the languages of the Northwest. Prerequisite: 321, 322, 323, 401.

431 Language Structures I Prerequisite: 321, 322, 323.

432 Language Structures II Prerequisite: 321, 322, 323.

440 History and Philosophy of Linguistics Historical and ontological development of linguistic concepts; issues in the philosophy of science pertaining to linguistic theory. Prerequisite: 221, 222, 240.

441 Linguistic Universals and Typology A survey of the main language types found in the world with reference to their structural properties. Prerequisite: 321, 322, 323.

480 Topics in Linguistics I Prerequisite: 12 credit hours of upper-division linguistic courses.

481 Topics in Linguistics II Prerequisite: 12 credit hours of upper-division linguistics courses.

SONOMA STATE UNIVERSITY
LINGUISTICS PROGRAM
SCHOOL OF SOCIAL SCIENCE

The fundamental concern of linguistics is with description and explanation of the inter-relatedness of thinking and speaking. This concern takes many forms: among others, inquiry into the nature of language as speech, as knowledge, and as communication; inquiry into the history of languages and how languages change; inquiry into how language is acquired, and into the nature of language learning and teaching.

The Linguistics Minor Program offers grounding in general linguistic principles, together with the widest possible selection of elective courses. Through this study plan, students are able to develop interests in particular areas of linguistics as strong complements to majors in related disciplines.

In addition to a 20-unit Linguistics Minor, the Linguistics Program offers a 24-unit Certificate Program (a.k.a. Career Minor) in Teaching English as a Second Language (TESL). The TESL program is a minor in applied linguistics with a specific focus: the application of (psycho/socio) linguistic principles and methods to the teaching of American English as a second/foreign language.

MINOR REQUIREMENTS

20 units, 12 of which must be in the following courses: LIN 200, 310, 311.

Electives: 8 units to be chosen from other Linguistics courses and/or linguistically-oriented courses offered by established departments.

TESL MINOR

24 credits consisting of the following courses: LIN 310, 441, 410, 499 (4 credits), 311, 357, 442.

COURSE DESCRIPTIONS

200 Introduction to Linguistic Studies The nature and structure of language; psycholinguistics; sociolinguistics, anthropological linguistics, comparative and historical linguistics.

310 Phonological Analysis Introduction to articulatory phonetics; methods and practice in the analysis of sound systems. Prerequisite: 200.

311 Grammatical Analysis Methods and practice in the analysis of the morphological and syntactic components of language. Prerequisite: 310.

320 Meaning, Context, and Reference Introduction to the linguistic approach to the study of meaning, including the ways in which meaning is determined by language use. Prerequisite: 200.

357 Dialects, Sociolects and Speech Communities Focus on the systematic study of language varieties spoken in particular geographical regions and/or by members of particular social classes or groups. Prerequisite: 200.

410 English Grammar and ESL Prerequisite: 200.

430 Psycholinguistics In-depth study of the basic processes involved in acquiring, producing and understanding language, and the relations between language and thought. Prerequisite: 200.

441 Linguistics and Second Language Teaching The relation of aspects of linguistic theory to second language teaching theory and methodology. Prerequisite: 200.

442 Teaching English as a Second Language

490 Topical Seminar Prerequisite: 200, and junior standing.

495 Special Studies Prerequisite: 200, or an appropriate upper division LIN course.

499 Internship in Applied Linguistics Prerequisite: appropriate coursework in linguistics, which may be taken concurrently.

SOUTHERN ILLINOIS UNIVERSITY AT CARBONDALE
LINGUISTICS DEPARTMENT
COLLEGE OF LIBERAL ARTS

The objective of the undergraduate major in linguistics is to provide broad, general training in theoretical and applied linguistics. The major is designed to help students achieve an awareness of the language systems of the past, and appreciation of human modes of communication, fundamental understanding of the ever changing linguistic environment in which they live, and processes by which language is acquired. Moreover, education in linguistic methods trains a student to think analytically, to evaluate hypotheses, and to propose new solutions. The analytical models of linguistics have, since the 1930's, been recognized by other disciplines (notably anthropology, psychology, and sociology) as significant research paradigms. Linguistic theory has also been enriched by insights and models from other disciplines. Students are encouraged to use their elective hours to explore the related areas of anthropology, computer science, English, foreign languages, mathematics, philosophy, psychology, sociology, speech communication, speech pathology and audiology, and statistics.

MAJOR REQUIREMENTS

The major in linguistics consists of a minimum of 32 semester hours comprising: (1) 16-18 semester hours in a core of basic courses in general linguistics, 300 or 401, 402A, 403 or 405, 406, 408; and (2) various structured alternatives, dependent on whether the student is more interested in theoretical or applied linguistics. Students concentrating on theoretical linguistics are advised to take 9 semester hours of 415, 440, and either 430 or 450, plus 6 or 7 semester hours of departmental electives. Students concentrating on applied linguistics are advised to take 8 semester hours of 453, 454, 455, plus 8 semester hours of 456, 415, and 445.

There is a foreign language requirement, potentially overlapping the College of Liberal Arts requirements, as follows: (1) one year of an uncommon or non-Western language, or (2) two years of any foreign language. Students planning graduate study in linguistics should take three years of foreign language study.

MINOR

The Department of Linguistics offers two minors: one in linguistics and one in uncommon languages.

LINGUISTICS

The minor in linguistics (15 hours) draws upon the basic courses of the Department of Linguistics. It introduces the student to the structure of language, the historical development of languages, and the relation of language to the rest of culture.

Requirements for the minor in linguistics: (1) 300 or 401; (2) at least two courses (6-8 hours) from among the following: 402A, 403, 405, 406, 408; (3) additional courses from among the following to complete at least 15 hours: 402B, 402C, 404, 415, 430, 431, 440, 450, 453, 497.

UNCOMMON LANGUAGES

The minor in uncommon languages consists of a minimum of 15 hours at 200-level or above of an uncommon language offered by the Department of Linguistics. Vietnamese courses are part of the minor in uncommon languages.

COURSE DESCRIPTIONS

200 Introduction to Descriptive Linguistics An introductory survey of synchronic, descriptive linguistics: assumptions, methods, goals, terminology, and data manipulation.

210 Elementary Uncommon Languages Introduction to the basic skills of listening, speaking, reading, writing, and the fundamentals of grammar. Must be taken in sequence. (A-B) Vietnamese.

321 Survey of Vietnamese Literature in Translation

341 Introduction to Intercultural Communication

401 General Linguistics Basic concepts and methods of general linguistics. Fundamentals of the nature, structure, and functioning of language. Data manipulation and problem solving.

402A/B Phonetics (A)Theory and practice of articulatory phonetics. (B)Theory and practice of instrumental phonetics.

403 English Phonology

405 Phonological Theories A survey of various phonological theories involving the phoneme from the 19th century up to the present. Prerequisite: 300 or 401, and 402A.

406 Introduction to Historical Linguistics An introductory survey of historical and comparative linguistics, including terminology, assumptions, and methods of investigation. Prerequisite: 405.

408 Syntactic Theory Basic concepts and formalisms of transformational generative grammar. Prerequisite: 300 or 401 and 430.

410 Intermediate Uncommon Languages Vietnamese. Prerequisite: 210.

411 The Linguistic Structure of Chinese

412 The Linguistic Structure of Japanese

413 The Linguistic Structure of French

415 Sociolinguistics History, methodology, and future prospects in the study of social dialectology, linguistic geography, multilingualism, languages in contact, pidgin and creole languages, and language planning. Prerequisite: one previous LIN course.

420 Advanced Uncommon Languages Vietnamese. Prerequisite: 410.

430 Grammatical Structures Detailed analysis of the structure of particular languages. Prerequisite: one previous LIN course.

431 Structure of the English Verb

440 Topics in Linguistics Prerequisite: one previous LIN course.

442 Language Planning Survey of the field of language planning: definitions and typologies, language problems, language treatment, attitudes, and beliefs about language, relations between language planning processes and other kinds of social and economic planning. Prerequisite: 401, 402A.

445 Introduction to Psycholinguistics A broad spectrum introduction to psycholinguistics. Topics include: the nature of language, theories of human communication, natural animal communication systems, and language and the brain.

450 Language Families A synchronic survey of particular language families or sub-families. Prerequisite: one previous LIN course.

453 Methods of Teaching English as a Second Language Introduces the basic methods of teaching English as a second language, specifically as part of bilingual programs.

454 Observation and Practice in TESL Prerequisite: 453 or concurrent enrollment.

455 Materials in TESL Prerequisite: 453

456 Contrastive and Error Analysis Examination of the interference of other languages into the English of ESL learners on the levels of phonetics, phonology, morphology, syntax, lexicology, semantics, and orthography. Prerequisite: 453.

SOUTHERN ILLINOIS UNIVERSITY AT EDWARDSVILLE
LINGUISTICS PROGRAM
ENGLISH DEPARTMENT
SCHOOL OF HUMANITIES

MINOR REQUIREMENTS

The minor in linguistics is through the English Department and requires a minimum of 24 hours, usually consisting of at least six of the following 300- and 400-level linguistics courses: ENG 370, 371, 400, 402, 403, 405A/B, 406, 407, 418, and 488A/B. However, students may elect to substitute a maximum of 8 hours from the following courses: ENG 404, 421; GREEK 101, 102, 103, 201, 202, 203; LATIN 101, 102, 102, 201, 202, 203. Students should select at least one course in each of the following: phonology (370, 405A), syntax (371, 400, 405B), and historical change (403, 404, 406, 407, 421). Students who major in English may have a minor in linguistics.

COURSE DESCRIPTIONS

ENG 207 Language Awareness Introductory course in the nature of language; what language is and how people use it.

ENG 369 Grammar for Teachers Grammar; practice in grammatical analysis of formal spoken and written English. Prerequisite: junior standing.

ENG 400 A Survey of Linguistic Theories and Concepts Various theories (such as structural and transformational) regarding language structure (phonology, morphology, syntax, and semantics) and changes within the structure. Prerequisite: junior standing.

ENG 402 Linguistics and Literature Ways in which linguistic analysis (such as sounds, grammatical and syntactic structures, and meaning) illuminates literary texts. Prerequisite: junior standing.

ENG 403 The History of the English Language Prerequisite: junior standing.

ENG 405 Methods and Theories of Language (A) Procedures for identifying and describing the units of sound and meaning in the English language. (B) Procedures for identifying and describing units of the English language from word through sentence levels. Prerequisite: junior standing.

ENG 406 Old English Grammar Prerequisite: junior standing.

ENG 407 Intermediate Readings in Old English Prerequisite: 406.

418 Applied Semantics Theories of language meaning; interpretation of actual texts, such as editorials, ads, puns, sexist language, and literature. Prerequisite: junior standing.

STANFORD UNIVERSITY
LINGUISTICS DEPARTMENT
SCHOOL OF HUMANITIES AND SCIENCES

Linguistics concerns itself with the fundamental questions: What is language, and how is it related to the other human faculties? In answering these questions, linguists consider language as a cultural and social phenomenon, and seek to determine what is unique in languages, what universal; how people learn language; how they use it; and how it changes. Linguistics is therefore one of the cognitive sciences; it provides a link between the humanities and social sciences, and also with education and hearing and speech sciences.

The department offers courses as the undergraduate and graduate levels in the areas central to linguistic theory and analysis; phonetics, phonology, morphology, syntax, semantics, pragmatics, and language change. It also offers particularly strong areas of specialization in child language, formal (including computational) linguistics, sociolinguistics, and philosophy of language.

A variety of open forums are provided for the discussion of linguistic issues, including the weekly linguistics seminar and monthly child language lunches. A number of postdoctoral fellows in the Cognitive Science Group, which consists of linguists, philosophers, psychologists and computer scientists, participate extensively in the activities of the department.

This major cuts across the humanities, social sciences, and physical sciences, and provides a solid general education as a background for advanced studies in such fields as Anthropology, Communications, Computer Science, Education (Language Arts and Language Teaching), Hearing and Speech Sciences, Languages, Law, Linguistics, Philosophy, and Psychology.

MAJOR REQUIREMENTS

1. Courses: A total of 45 units is required, including L110. These 45 units must form a coherent program within one of the following areas of specialization.

    a. Formal Linguistics: Formal Linguistics concerns the development of mathematical models of linguistic structure. Subspecializations are possible in syntax, semantics, phonology, or computational linguistics.

    b. Linguistics and Cognitive Science: Cognitive Science seeks to understand the mind, specifically the nature of cognitive systems like language, the way language is represented in the mind, and the procedures by which language is learned and utilized.

c. Linguistics In Education: This area of study prepares a student for the application of linguistic tools to vital problems both in the learning process and in educational policy. Specific foci include language attitudes and bilingual education.

d. Linguistics and Literature: This area of study focuses on analysis of discourse, literary vs. non-literary language, oral vs. written literature, and literacy. It provides suitable preparation for advanced study in literary theory, law, and other fields where textual analysis is important. L11 is required.

e. The Linguistics of a Particular Language or Language Family: This specialization, which provides a suitable preparation for foreign language teaching, translating, or graduate study, may be arranged in any language or language family offered at Stanford (e.g., French, Spanish, Germanic, Chinese, Indo-European or African Linguistics).

f. Sociolinguistics: Sociolinguistics is the study of language as a social and cultural phenomenon. It includes such topics as the language of social class, ethnicity, nation, sex, religion; languages in contact, bilingualism, language and the law; non-verbal communication and conversational analysis; social factors in linguistic variation and change.

g. Speech Production and Perception: This specialization focuses on behavioral and physiological aspects of normal and defective processes of human communication. It is an appropriate preparation for graduate work in speech, language, and hearing sciences, speech and hearing disorders, or neurolinguistics. Specific requirements include L120, L121 and L122.

h. General Linguistics: This area is intended for students wishing to specialize in more than one of the above-mentioned areas. Requirements include at least one course in each of the following subjects: phonetics, phonology, syntax, and semantics.

i. Individually Designed Area

2. Language: Majors must have competence in a modern foreign language.

COURSE DESCRIPTIONS

10 Introduction to Linguistics A general introduction to the nature of human language and the methods of modern linguistics. Topics include: comparisons between human language and animal

communication, how children acquire language, non-verbal communication, language change, universals, the relationship between language and society, and the application of linguistic science to social, educational, and political problems.

11 Linguistics and Literature An introduction to English linguistics and applications of linguistic concepts to literary analysis with some attention to regional and social dialects.

15 Language and Speech Disorders This course focuses on the major congenital and acquired pathologies.

45 Language and Culture Lecture course on the ethnography of communication and theories of language and culture. Intensive analysis of linguistic repertoire, rules of use, ethnosemantics, and linguistic history of a single speech community.

50 The Structure of the English Words There are two goals. The first is to increase the student's vocabulary. The second is, by means of enumerating the principles behind changes in pronunciation and meaning, to take some of the mystery out of the process that have made English vocabulary what it is today.

56 Language and Social Issues in America American English as a national language: dialect differences and changing values. The place of Spanish in the US. New functions for traditional American Indian language. Bilingual education. Black English.

57 Language Minorities in Modern Nations The rise of language nationalism in Europe, the spread of English and other languages of wider communication, and the world-wide resurgence of ethnicity and language loyalty.

75 Computers and Language Basic principles of computing and linguistics.

81 Introduction to the Germanic Languages

85 Black English

90 Critical Thinking An introductory course on reasoning, combining a survey of some relevant philosophical issues with extensive practice in interpreting, analyzing, and criticizing arguments. Special attention will be paid to legal reasoning, examining relevant court opinions.

92A Introduction to Methods of Teaching English as a Foreign Language

92B Practicum in TEFL Prerequisite: 92A.

97 Research in Linguistics Introduction to research goals and methods in linguistics and related disciplines.

101 Mathematics for the Study of Language Elementary logic, model theory, automata theory, and the Chomsky hierarchy of grammars.

110 Linguistic Theory and Analysis An introduction to the theoretical concepts and analytic techniques of modern linguistics. Emphasis on the solution of problems drawn from a variety of languages. Prerequisite: 10.

120 Foundations of Phonetic Analysis

121 Physiology of Speech Production

122 Speech Perception Prerequisite: 121.

130 Introduction to Syntax Practical experience in forming and testing linguistic hypotheses, reading and constructing rules.

140 Semantics and Pragmatics A survey of fundamental issues in the analysis of meaning in natural language. Includes an introduction to model-theoretic semantics. Other topics include the role of semantics in generative grammar, conversational implicature, and speech acts. Prerequisite: either 101 or Philosophy 56.

155 Introduction to Sociolinguistics The aim of this course is to train students in the systematic observation of speech; there will be some practice in participant-observation, interviewing and recording of conversations. Prerequisite: 10.

160 Languages in Contact Topics include borrowing and linguistic interference, language convergence and divergence, multilingualism, pidginization, decreolization, interlanguage and other continual, social and psychological dimensions of language contact.

161 Introduction to Multilingualism Students are expected to do research on the characteristics of multilingualism in a country of their choice.

162 Pidgins and Creoles Lecture on the formation of simplified contact languages (pidgins) and their subsequent elaboration. Prerequisite: an introductory course in linguistics or anthropology.

165 Child Language Acquisition I Review of present knowledge of process of language acquisition from a linguistic point of view. Prerequisite: 10.

170 Language and Thought

181 Linguistics and the Analysis of German

182 Introduction to German Dialects Introduction to the major dialect of German-speaking Europe through texts, tapes, lectures and presentations by native speakers.

185 The Structure of American Sign I Overview of the phonology, morphology, and syntax of American Sign Language, with emphasis on comparisons between signed language and spoken language.

186 The Structure of American Sign II Prerequisite: 185.

STATE UNIVERSITY OF NEW YORK AT ALBANY
LINGUISTICS PROGRAM
COLLEGE OF HUMANITIES AND FINE ARTS

The linguistics major is designed to provide students with a basic understanding of the nature of human language and the principles and methods of contemporary linguistic theories. The major offers a liberal education which combines the approaches of the humanities, the social sciences, and the sciences. It also provides appropriate preparation for those interested in pursuing graduate work in linguistics or related disciplines. The Linguistics Program and the Department of Teacher Education offer a combined B.A./M.S. program leading to a bachelor's degree in linguistics and a master's in teaching English to speakers of other languages.

The possibility of studying a foreign language not regularly taught at the University is provided by Lin 289, Directed Study in Foreign Languages. This course is open to any undergraduate student in the University.

THE MAJOR

General Program B.A.: 36 credits in the major field of study, includes: Lin 220Y, 321, 421 or 422, 499; one year of a foreign language, as advised; additional credits, as advised, including a minimum of 6 credits at the 300 level or above; these are to be chosen from the courses offered in the Linguistics Program and from approved courses in other departments.

Language proficiency requirement: majors are expected to demonstrate proficiency in a foreign language (other than the language chosen to fulfill the one year requirement).

Students are encouraged to broaden their education in related fields by completing a second major rather than a minor. This is facilitated by the flexibility of the requirements. Where appropriate, certain courses may be used to fulfill requirements in both majors.

THE MINOR

A minimum of 18 graduation credits (including a minimum of 9 graduation credits in coursework requiring one or more Prerequisite course or courses at or above the 300 level) including 220Y and 6 credits from the following: 321, 322, 325, 421, 422, 497, 499. The remaining credits are selected from other linguistics courses or other approved courses.

COMBINED BA/MS PROGRAM

The combined BA/MS program in linguistics and teaching English to speakers of other languages provides an opportunity for students of recognized academic ability to fulfill integrated requirements of undergraduate and master's degree programs from the beginning of their junior year.

COURSE DESCRIPTIONS

220y Introduction to Linguistics Introduction to the study of language including examination of the characteristics and structural principles of natural language.

289 Directed Study in Foreign Language

321 Morphology and Syntax The analysis and description of the grammatical systems of languages.

322 Introduction to Phonology Introduction to the analysis of sound systems including articulatory and auditory phonetics.

325 Sociolinguistics Basic sociolinguistic concepts, interactional sociolinguistics, social dialects, black English, diglossia, bilingualism, and bilingual education.

421 Syntax and Semantics A survey of formal approaches to language such as transformational grammars, generative semantics, cognitive linguistics.

422 Advanced Phonology Studies in generative phonology, including the basic assumptions of generative theory, comparison with other approaches to phonology, and discussion of recent theoretical trends in phonology.

STATE UNIVERSITY OF NEW YORK AT BINGHAMTON
INTERDIVISIONAL LINGUISTICS PROGRAM

Linguistics is devoted to the scientific study of language. Its methods and subject matter cross-cut traditional academic disciplinary boundaries, combining humanistic, social-scientific, and biobehavioral perspectives on language structures, functions, and abilities. Linguistics courses are therefore of relevance to a wide variety of different fields of study.

MAJOR REQUIREMENTS

The major program in linguistics offers the student a firm basis in the principles of modern linguistic theory and techniques of analysis, and an introduction to applications of linguistics to an area of study of the student's choice. Three specializations are available: (A) languages and linguistics, (B) linguistics as a biobehavioral and social science, and (C) social and clinical perspectives.

Students contemplating graduate study in linguistics are encouraged to select specialization A or B. They are reminded that knowledge of at least two foreign languages (one language of scholarship and one nonwestern language) is valuable and often required in graduate linguistics programs. Students contemplating careers in speech pathology, deaf education, clinical psycholinguistics, etc. are advised to complete specialization C and to consult appropriate graduate program descriptions or professional sources to determine auxiliary training needed for graduate admissions or employment.

SPECIALIZATION A: LANGUAGES AND LINGUISTICS

This specialization is for students with a dual interest in linguistics and the study of foreign languages. Minimum requirements are:

1. LIN 112, 118, 222, 323, 325, and 434.
2. Language courses: (a) one course in composition or phonetics or advanced grammatical analysis (Normally presupposing four or more semester of language instruction); (b) four semesters of instruction in a language or languages other than the language of (a).
3. Two advanced linguistics courses: LIN 300 or above.
4. Any of the above courses when taken to meet the minimum course requirements for the major, must be taken for a letter grade (no P/F) and the grade received must be a C or better. The overall average in courses taken to meet these minimum course requirements must be a C or better.

SPECIALIZATION B: LING. AS A BIOBEHAVIORAL AND SOCIAL SCIENCE

This specialization is for student's who wish to explore topics in the study of language as it relates to the biological, behavioral, and social sciences. Minimum course requirements are:

1. LIN 112, 118, 222, 323, 325.
2. Two additional courses in linguistics above LIN 150.
3. Two advanced courses in linguistics: LIN 300 or above.
4. Any of the above courses, when taken to meet the minimum course requirements for the major, must be taken for a letter grade (no P/F) and the grade received must be a C or better. The overall average in courses taken to meet these minimum course requirements must be a C or better.

SPECIALIZATION C: LANG. AND COMM.: SOCIAL AND CULTURAL PERSPECTIVES

This specialization is for students who wish to develop theoretical and practical knowledge of linguistics and apply that knowledge in one or more of the various human services fields (for example, speech therapy, health care delivery, special education, legal contexts, counseling, etc.). Minimum course requirements are:

1. LIN 112, 118, 222, 323, 325.
2. LIN 272 or 351.
3. Two courses from among the following three: LIN 442, 466, 474.
4. Two cognate courses. The list of approved cognate courses is available from the track C adviser.
5. Any of the above courses, when taken to meet the minimum course requirements for the major, must be taken for a letter grade (no P/F) and the grade received must be a C or better. The overall average in courses taken to meet these minimum course requirements must be a C or better.

MINOR REQUIREMENTS

A minor specialization in linguistics is available to those students whose interests lead them to the scientific study of language, but whose other commitments preclude the possibility of a full major program.

Six courses, distributed as follows, are required for the minor:

1. LIN 112 and 118.
2. Two courses from among the following: LIN 222, 323, 325, 338, 442, 466, 474.
3. Two additional courses in linguistics above LIN 150 (including, if desired, other selections from among the above courses).

At least two of the above six courses must be above LIN 300. Not more than two may be counted toward fulfillment of requirements for the student's major program.

BA/MS IN LINGUISTICS-SPEECH PATHOLOGY

The Linguistics Program has entered into agreements with several graduate institutions in New York State that enable students to combine undergraduate work in linguistics with graduate training in speech pathology and communicative disorders. These agreements involve the student's spending the final semester of undergraduate study in residence at the graduate institutions, where courses in communicative disorders are taken, earning credits toward the SUNY BA in Linguistics. Following this transitional semester, the student continues (as a matriculated graduate student) in Speech Pathology and Communicative Disorders, working toward a master's degree and clinical certification. Details of the BA/MA options are available from the Track C adviser.

Student's in the combined BA/MA program follow a modified Track C plan, which includes:

1. LIN 112, 118, 222, 323, 325.
2. LIN 272, 366, 374.
3. Two cognate courses from a list of approved courses. The list of approved cognates is available from the Track C adviser.

Students who are considering the BA/MA in LInguistics-Speech Pathology should consult with the Track C adviser as early as possible in the undergraduate career, preferably not later than the end of the sophomore year.

COURSE DESCRIPTIONS

112 Language in Human Behavior Introduction to interdisciplinary study of language; psychological, social, and cultural aspects of language use.

118 Introduction to Linguistic Structures Basic methods and concepts of linguistic analysis, including phonetics, phonology, morphology, syntax, and semantics.

131 Word Origins Principles of vocabulary comprehension based on word structure of Latin and Greek derivatives.

132 Scientific Terminology Principles and methods of analyzing English words of Greek and Latin derivation. Word formation. Modification of root concepts by formative additions.

155 Nonverbal Communication Animal communication systems and possible human analogues. Role of nonverbal communication in interpersonal interactions.

222 Articulatory and Acoustic Phonetics Principles and mechanisms of speech production. Production, recognition, and transcription of speech sounds. Acoustic correlates of speech.

225 Philosophy of Language

228 Structure of Language X Survey of structure of languages for purposes of typological, historical, or other scientific analysis. particular language or languages announced in advance.

230 American Dialects Regional and social variation in American English. Pronunciation, vocabulary, and grammar.

233 Language, Sex and Gender Theoretical and empirical aspects of the relationship between language and the sexes. Sexism in linguistic structures; sex- and gender-determined patterns of language use.

234 Teaching English as a Second Language Prerequisite: 118.

236 Structure of the English Language

237 History of the English Language

239 Introductory Topics in Linguistics (Humanities)

249 Introductory Topics in Linguistics (Social Science)

272 Symptoms and Causes of Speech and Language Disorders Anatomy and physiology of hearing and speech. Symptoms and diagnosis of speech, hearing, and language disorders. Prerequisite: 118 and previous or concurrent 222.

279 Introductory Topics in Linguistics (Science and Mathematics)

315 Field Methods in Linguistics Techniques of data-gathering, analysis of unwritten languages or dialects, using informants. Prerequisite: 118.

323 Phonology Phonological theory; problems of phonological analysis. Prerequisite: 118 and 222.

325 Syntax Syntactic theory; problems of syntactic analysis. Prerequisite: 118.

338 Second Language Acquisition Psycholinguistic research and theory relevant to acquisition of second language. Pilot experimentation in applied psycholinguistics. Role of contrastive analysis. Prerequisite: four semesters of foreign language training or equivalent.

339 Topics in Linguistics (Humanities)

349 Topics in Linguistics (Social Science)

351 Language and Human Services Interrelations of linguistics and allied fields, such as anthropology, education, mental health, psychology, and sociology, from perspective of human services practice and education. Prerequisite: 118.

379 Topics in Linguistics (Science and Mathematics)

434 Language Change Language change, historical relationships between languages, techniques of reconstruction of protolanguages; genetics, areal, and typological comparison. Prerequisite: 118.

436 Typology and Universals of Language Phonological, morphological, syntactic, semantic typology of human languages. Prerequisite: 118.

439 Advanced Topics in Linguistics (Humanities)

442 Sociolinguistics

449 Advanced Topics in Linguistics (Social Science)

466 Psychology and Development of Language Survey of psycholinguistics. Theoretical issues, research methods, and substantive findings in study of language perception, production, and acquisition. Prerequisite: 118 or PSY 220 or 355 or 356 or PHIL 215 or 225.

467 Psycholinguistics Laboratory Prerequisite: previous or concurrent enrollment in LIN 466.

474 Biopsychology and Neurology of Language Relationship between brain and language. Basic aspects of structure and function of human nervous system, with particular reference to language and speech. Prerequisite: 118 or BIO 110 or 251 or PSY 220 or 362 or ANTH 168.

478 Verbal and Cognitive Processes Basic problems and methods in study of verbal learning and behavior.

479 Advanced Topics in Linguistics

491 Practicum in Teaching Introductory Linguistics

495 Internship in Communicative Disorders Prerequisite: 118 and 272.

STATE UNIVERSITY OF NEW YORK AT BUFFALO
LINGUISTICS DEPARTMENT
FACULTY OF SOCIAL SCIENCES

Linguistics is the scientific study of the function and structure of language, which is the most impressive achievement of the human mind and the major factor in the organization of culture and society. The Linguistics major gains a general view of the field and becomes proficient in one or more areas of technical knowledge and analysis.

Students have the opportunity to explore the properties of formal, social, cultural, and psychological systems in the context of language.

MAJOR REQUIREMENTS

A minimum 3.0 overall average is required for admission to the Linguistics Department. Total hours to be completed: 36.

1. Two introductory courses : 205 and 207
2. One course from each of the following areas: phonology, syntax, sociolinguistics and psycholinguistics.

Linguistic Electives-selected by advisement (18 credits) within the department and from approved courses with linguistic content in other departments. Students may petition to include other non-departmental courses, or graduate courses, in their major program.

MINOR REQUIREMENTS

1. Required courses: 205 and 207
2. One course in phonology, syntax, and either psycholinguistics or sociolinguistics. (All of these courses must be upper division courses).

COURSE DESCRIPTIONS

100 Language in Ethnic Buffalo

110 Language in Human Life Part language plays in the growth and organization of human personality.

205 Introduction to Linguistic Analysis Principles of linguistic analysis for sound systems, word formation and sentence structure.

207 Language, Society, and the Individual How language relates to other aspects of human behavior, how language is learned and used; how it affects and is affected by society, culture and the human psyche.

315 Language in its Social Setting Prerequisite: 207

355 Child Language Development Elaboration of sound, syntax, and meaning as children learn their native language; parallel developments in language and thought; nature/nurture controversy.

400 Organization of Language Concepts in linguistics and their application to the analysis of language structure: Language origins; human and non-human communication systems; phonetics; phonology; morphology;syntax; semantics; language acquisition; language variation; language change; language universals and typology.

401 Methods in Linguistic Analysis Techniques for eliciting data; structural analysis of data; problems drawn from different languages. Prerequisite: 205.

402 Phonology Practicum Ear training and phonetic transcription using native informants. Prerequisite: 301.

405 Bilingualism and Language Contact Language contact in the individual and the community.

406 Meaning of Communicative Behavior "Sapir-Whorf" hypothesis; folk taxonomy; componential analysis; poetic function of language. Prerequisite: 207

407 Conversational Analysis Aspects of human communicative interaction. Prerequisite: 207.

410 Morphology Examines similarities and differences among many different types of languages in word construction from smaller, meaningful parts.

413 Language and Cognition Categorization theory, cognitive and cultural bases of categorization; grammatical and lexical manifestations of categorizations.

415 Introduction to Transformational Theory

417 Language Performance Prerequisite: 205

418 Language Planning Prerequisite: 207.

425 Universal Grammar In a variety of languages, this course examines the morphological and syntactic properties of Case Marking, Word Order, Verb Agreement, Passives, Raising, Reflexives, etc.

431 Phonetics and Phonemics A survey of phonetics and phonology within a descriptive framework.

434 Syntactic Theory Introduction to post-transformation syntax: government, binding, theta theory, barriers.

435 Language Universals Techniques, controls, applications in anthropology and linguistics. Prerequisite: 431 and 434.

438 Approaches to Semantics A survey to the major current approaches: Empirical semantics; Formal semantics; Pragmatics; Discourse Analysis; Cognitive Sciences. and generative-transformational syntax. Prerequisite: 434.

440 Language and Literature Role of language in the structure of the literary work based on a functionalist and social-science-oriented theory.

451 The Structure of English Prerequisite: 205.

453 Language in Education

465 Introduction to Dialectology

488 Phonological Theory Theories, primarily generative, designed to account for phonological phenomena. Prerequisite: 301.

495 Sociolinguistics Relationship between sociologically and linguistically identifiable behavior. Prerequisite: 315.

STATE UNIVERSITY OF NEW YORK AT STONEY BROOK
LINGUISTICS DEPARTMENT
COLLEGE OF ARTS AND SCIENCES

The program in linguistics is concerned with the study of language as a central human attribute. Courses are offered in the major areas of modern linguistic theory.

MAJOR REQUIREMENTS

The major in linguistics leads to the Bachelor of Arts degree. The following courses are required.

1. Introduction to Linguistics, Phonetics and to Syntax.
2. Six additional linguistics courses to be selected after consultation with the student's advisor.
3. One year of a non-European language. This requirement may be met by CHI 111, 112; HBW 111, 112; LAN 115, 116, SKT 111, 112.
4. Two years of a modern foreign language.

MINOR REQUIREMENTS

The following courses are required for a minor in linguistics.

1. 101 Introduction to Linguistics
2. Phonetics
3. Introduction to Syntax and four linguistics courses, of which at least three must be at upper division level.

COURSE DESCRIPTIONS

101 Introduction to Linguistics An introduction to the fundamental areas and concepts of modern linguistics.

111 Language: An Interdisciplinary Perspective The study of language related to issues in other social science disciplines.

121 Structure of English Words

115-116 Selected Languages (Elementary)

191-192 Selected Languages (Intermediate)

201 Phonetics

211 Introduction to Syntax

301 Phonology Prerequisite: 201

305 Introduction to Sociolinguistics Prerequisite: 101 and 211

311 Advanced Syntax Prerequisite: 211

320 Psycholinguistics Prerequisite: 101 and 211

321 Linguistic Analysis The application of methods of linguistic analysis to major bodies of data from a variety of languages. Prerequisite: 211 and 301

330 Language Acquisition

333 Mathematical Aspects of Linguistics Prerequisite: 211

340 Introduction to Historical Linguistic Methodology The application of linguistic theory to the comparative reconstruction of language systems. Prerequisite: LIN 211 and 301

342 The Development of Linguistics in the Twentieth Century Prerequisite: 101, 211, and 301

351 Advanced Phonology Prerequisite: 301

363 Language and Culture Prerequisite: 101 or ANT 102 and either ANT 200 or two other courses in the social sciences.)

375 Methods and Materials of Teaching English as a Second Language The application of linguistic methodology to teaching English to non-native speakers. Prerequisite: 101 and two years of a modern foreign language

376 Principles of Language Testing Prerequisite: 375 or FLA 339

405 Field Methods in Sociolinguistics Prerequisite: 305

421 Field Methods in Linguistics Students will learn techniques of writing a grammar of a language unknown to them by working with a speaker of that language. Prerequisite: 201 and 211

425 Special Topics in Linguistics

431 The Structure of an Uncommonly Taught Language An investigation of the phonology and syntax of either some language or some family of languages. Prerequisite: 301, 311 and 321

450 Supervised Student Teaching in English as a Second Language

454 Student Teaching Seminar in English as a Second Language

475 Practicum in Teaching English as a Second Language - Oral/Aural Skills Prerequisite: 375

476 Practicum in Teaching English as a Second Language - Reading/Composition Skills Prerequisite: 375

SWARTHMORE COLLEGE
LINGUISTICS DEPARTMENT
SCHOOL OF SOCIAL SCIENCES

Linguistics is the study of language. On the most general level it deals with the internal structure of languages, the history of their development and the role they play in influencing the entire spectrum of human activity. Linguistics attempts to arrive at an adequate description of the phonological, syntactic, and semantic components of language, differentiating those elements which are generic to all languages from those which are particular to any given language or family of languages. Historical linguistics looks at the evolution of these components over time. Sociolinguistics centers on the link between language and the social context in which it is spoken; mathematical linguistics on the formal analysis of linguistic structures; and psycholinguistics on the interplay between language and the processes of perception and cognition. Furthermore, linguistic variables influence interaction at the individual and societal levels, play a central role in shaping the form and meaning of literary expression and constitute a significant area of philosophical inquiry.

SPECIAL MAJORS

Special majors bridging linguistics with individual foreign languages, the humanities or the social sciences are encouraged for Course students. All such programs are designed on an individual basis to suit the interests of the student, but it is highly recommended Linguistics 108 be included at some point in the course sequence.

COURSE DESCRIPTIONS

1 Language--An Introduction An introduction to the science of linguistics.

15/Chinese 15 The Chinese Language

20/French 20 History of the French Language

23/English 23 History of the English Language

25/Soc/Anth 25 Language, Culture and Society Prerequisite: 1. An investigation of the influence of cultural context and social variables on verbal communication. We will discuss theories of language acquisition and language change in light of cross-linguistic and cross-cultural evidence.

26/Philosophy 26 Language and Meaning

30 Linguistics and the Human Sciences

34 The Psychology of Language An exploration into the ways in which the syntactic and meaning elements of language are represented in the mind and into the effects these psycholinguistic structures may have on the way we think, with special emphasis on an attempt

to interpret philosophical and sociological (including feminist) views in terms of psychological theory and research and on cross-cultural perspectives.

35 History of Linguistics An examination of linguistic study from ancient times to the present.

52 Historical and Comparative Linguistics Reconstruction of prehistoric linguistic stages; the establishment of language families.

55 Comparative Grammar of Greek and Latin A historical-comparative investigation of the phonology, morphology and syntax of Greek and Latin in light of their development from the common parent language of Proto-Indo-European.

57 Sanskrit I Introduction to the script and grammar of the ancient Indic language of Sanskrit.

58 Sanskrit II A continuation of Linguistics 57 with translation of selections from various classical Vedic texts.

60 Language and the Brain An investigation of selected topics in neurolinguistics.

104/Soc/Anth 104 Human Nature and Culture: Convergent Perspectives

108 Syntactic Theory A comparison of models of linguistics description with emphasis on recent developments in syntax and semantics.

110 Indo-European and the Indo-Europeans

114 Advanced Topics in Linguistics

116/Philosophy 116 Language and Meaning

SYRACUSE UNIVERSITY
LINGUISTICS PROGRAM
COLLEGE OF ARTS AND SCIENCES

Linguistics is the study of the nature and use of language and provides insight into the workings of the human mind. The program ties together studies in many areas, such as anthropology, child and family studies, computer science, English and other languages, geography, literary criticism, mathematics, philosophy, psychology, sociology, speech communication, speech pathology, and linguistics proper.

LIN 201, which introduces most of the subject matter included in linguistic studies, is a prerequisite to the major and to advanced courses. It does not, however, count toward major requirements.

MAJOR REQUIREMENTS

To complete the major program in Linguistic Studies, a student must:

1. meet the basic skills requirements in a Western language;
2. successfully complete either (a) 6 credits of courses numbered above 212 of a single Western language, or (b) 6 credits of courses in a single non-Western language;
3. successfully complete LIN 305, 435 and 445.
4. successfully complete at least 2 credits of LIN 400; Major Seminar; and;
5. successfully complete at least 18 credits of additional work (at least 9 credits of which are in courses numbered 300 or above) in approved linguistic studies program courses, chosen to include courses from each of at least three of the following groups:

    a. Psychology and Biology of Language

CFS 365	Language Development in Young Children
LIN 591	Second-Language Acquisition
PSY 395	Introduction to Psycholinguistics
SPP 205	Fundamentals of Speech Science
SPP 215	Anatomy, Physiology, and Pathology of Hearing
SPP 216	Introduction to Applied Phonetics
SPP 225	Introduction to Speech and Hearing Disorders
SPP 509	Neural Processes of Speech and Language
SPP 540	Language Development and Disorders

    b. Language in Culture and Society

ANT 575	Culture and Communication
ENG 302	Language in America
LIN/ANT 472	Language, Culture, and Society
LIN/ANT/SOC 570	Topics in Sociolinguistics
SPC 430	Intercultural Communication

c. Logic and Language
   - CIS 415 Introduction to Computational Linguistics
   - PHI 251 Logic
   - PHI 265 Chomsky, Chimps, and Language
   - PHI 365 Language and Mind
   - PHI 551 Symbolic Logic
   - PHI 552 Modal Logic
   - PHI 565 Philosophy of Language

d. History and Structure of Language
   - ENG 301 The English Language: History and Structure
   - ENG 401 Semantics and Lexicology
   - ENG 506 History of the English Language
   - ENG 507 Contemporary English: Theory and Practice
   - LIN 215 Languages of the World
   - SPA 524 History of the Spanish Language

e. Language Pedagogy
   - ENG 505 Methodology of TESL
   - SED 523 Methods and Materials of Teaching Modern Languages

MINOR REQUIREMENTS

To complete a minor in linguistic studies, students must take 18 credits, 12 of which must be in courses numbered above 299. Students also choose four courses from any one track listed below, in addition to taking both of the following courses: LIN 305 and 445.

a. Psycholinguistics/Sociolinguistics
   - ANT 372 Issues in Intercultural Conflict and Communication
   - CFS 365 Language Development in Young Children
   - ENG 507 Contemporary English: Theory and Practice
   - LIN 472 Language, Culture, and Society
   - LIN 570 Topics in Sociolinguistics
   - LIN 591 Second-Language Acquisition
   - PSY 395 Introduction to Psycholinguistics
   - SPC 430/630 Intercultural Speech Communication

b. Philosophy of Language
   - CIS 415 Introduction to Computational Linguistics
   - CIS 573 Computability Theory
   - MAT 572 Introduction to Set Theory
   - PHI 251 Logic
   - PHI 365 Language and Mind
   - PHI 551 Symbolic Logic
   - PHI 565 Philosophy of Language

c. The English Language
   - ENG 301 The English Language: History and Structure
   - ENG 505 Methodology of TESL
   - ENG 506 History of the English Language
   - ENG 507 Contemporary English: Theory and Practice\&

d. Languages of the World

LIN 215 Languages of the World
LIN 472 Language, Culture, and Society
SPC 430/630 Intercultural Speech Communication

COURSE DESCRIPTIONS

LIN 210/ENG 221 The Nature and Study of Language Introduction to study of human language. Language change and diversity, usage, meaning, phonetics, grammatical description, and language learning.

LIN 215 Languages of the World Differences and similarities among human languages. Historical relationships among languages, especially those of Europe.

LIN 305/605 Introductory Linguistic Analysis Techniques and methods of modern linguistics: specific analysis of phonetic, phonological, morphological, and syntactic aspects of natural language structure.

LIN 400 Topics in General Linguistics

LIN 435/635 Phonological Analysis Introduction to analysis of sound systems of natural languages. Prerequisite: LIN 305/605.

LIN 445/645 Syntactic Analysis Introduction to analysis of morphological syntactic systems of natural languages. Prerequisite: LIN 305/605.

LIN 472/ANT 472 Language, Culture, and Society Cross-cultural survey of the role of language in culture and society. Basic linguistic concepts, sociolinguistics, semantic analysis.

LIN 501 General Linguistics Theories and methods of synchronic analysis; distinction between competence and performance.

LIN/SOC/ANT 570 Topics in Sociolinguistics Functions of language in society. Geographical, socioeconomic, and male-female differentiation.

LIN 591 Second-Language Acquisition Survey of research on second-language acquisition: biological, cognitive, affective, and social factors.

TEMPLE UNIVERSITY
LINGUISTICS PROGRAM
ENGLISH DEPARTMENT
COLLEGE OF ARTS AND SCIENCES

The program in Linguistics provides the opportunity to study the nature of human languages and to learn methods for analyzing linguistic behavior and problems involving language. To this end, we offer a core of courses based on contemporary theories of sound, structure, and meaning in language and a wide range of electives and independent study options. As an inter-departmental program, we are able, in course and independent projects, to explore with interested students linguistic topics related to fields as varied as anthropology, classical culture, computer science, education, folklore, history, literature, philosophy, psychology, sociology, and speech.

MAJOR REQUIREMENTS

Preparation

One 4-credit survey of linguistics: Speech 108, Introduction to Linguistics; English 108, Introduction to Linguistics; Anthropology 127, Fundamentals of Linguistic Anthropology or Anthropology 77, The Nature of Language and two 4-credit courses in a language other than English.

Required courses

One 4-credit course in syntax and syntactic theory: English 208, Intermediate Linguistics, or Linguistics 501 and one 4-credit course in phonology and phonological theory: Speech 209, Phonetics and Phonology or Linguistics 502

Electives

A total of not fewer than 24 hours and not fewer than six courses in linguistics independent study, foreign language courses (no more than two) or the Linguistics-related courses listed elsewhere.

MINOR REQUIREMENTS

Required Courses

(Same as for Major in linguistics) English 208 or Linguistics 501, Speech 209 or Linguistics 502

Electives

At least 12 credit hours in courses chosen from the electives listed for the Concentration in Linguistics.

Course Descriptions

English/Speech 108 Introduction to Linguistics This course will consider questions such as the following: What is the essential nature of human language? How is it structured? How does it resemble and how does it differ from arbitrary formal systems and non-verbal types of communication? In what ways do human languages differ from each other, and in what ways are the alike? Are there necessary universal properties of language? What properties of languages and of human beings make it possible for us to learn language easily and quickly under the conditions of experience in childhood? In investigating these questions, we will study data from English and other languages showing the ways in which sound and meaning are related to each other by structural principles. In addition, we will consider certain data concerning the cognitive processing of language, the learning of language in various social contexts. Some facts about language change and the nature and origin of social and geographic variation in language will also be investigated. Throughout, we will pay particular attention to the ways in which linguists think about problems and use data in the testing of scientific hypotheses bearing upon the fundamental questions raised above.

English 208 Intermediate Linguistics No speaker of English would ever purposely say, "The boots that he died with on were made of cowhide." But why not? Nobody teaches us not to say such things. The sentence even makes sense; the structure just sounds wrong. This course in English syntax will not only make students familiar with how to figure out why sentences like the one above work (or don't work) as they do. In addition, the course will touch on some philosophical and psychological questions involved in linguistic theory, such as "What do people know about language that allows them to make judgments about sentences like the one above?" No previous courses in Linguistics are required.

Speech 209 Phonetics and Phonology Prerequisite: Speech/English 108. Investigates sound structure in language from the viewpoint of generative phonology. Extensive analysis and the discussion of data from various languages, and certain areas of English phonology (the vowel system, the stress placement rules) are discussed in greater detail. Discussion of the major issues dividing the generative from the structuralist school in phonological theory.

UNIVERSITY OF ALABAMA AT BIRMINGHAM
LINGUISTICS PROGRAM
ENGLISH DEPARTMENT

Students interested in developing a major or minor concentration in linguistics are invited to participate in an interdisciplinary program. The linguistics concentration is designed for students interested in careers represented by the participating disciplines that might involve detailed knowledge of natural or artificial languages. Please note that the program is not necessarily one for "people who speak a lot of languages," but rather is intended for students interested in the structure and function of language. Students should consult the program director for advising.

MAJOR AND MINOR REQUIREMENTS

The major concentration consists of 36 hours, 18 required and 18 selected. The minor concentration consists of 18 required hours.

Requirements: LIN 101 or 120; LIN 250 or 221; PHL 220 or CS 250; LIN 355, 360 or 425; PHL 350, LIN 466, 356 or CS 462; LIN 451, 453 or ANTH 508 (by special permission). A list of elective courses beyond those listed below is available from the program director. No linguistics course in which a grade below C has been earned may be counted toward a major or minor.

COURSE DESCRIPTIONS

101 Introduction to Linguistics Areas of linguistics and fundamentals of linguistic science; world language families.

120 Language and Culture Language origins, classification, acquisition and universals. Language as expression of cultural values and social structures.

221 Introductory Descriptive Linguistics Description and analysis of non-Western languages.

250 Structure of English Prerequisite: EH 102.

351 Phonetics Acoustical and kinesiological analysis of sounds of American English. Regional and dialectical speech patterns. Prerequisite: 3 hrs in Communication Arts.

355 Introduction to Sociolinguistics Social factors that play role in language usage and learning; emphasis on American English.

356 Semantics Meaning in language with reference to questions of synonymy, ambiguity and language use.

359 Linguistic Anthropology Development of linguistics; recent work in models, theory and speech behavior; application of psycholinguistics, recent sociolinguistic and semantic theory. Prerequisite: ANTH 120 or 221.

360 Phonology Sound patterning of languages. Prerequisite: LIN 101 or 120.

423 Cognitive Anthropology Modes, patterns, processes and products of thinking in terms of universals and cultural differences. Prerequisite: 9 hrs ANTH or SOC.

425 Sociolinguistics Structure of language code, context and choice, theories of speech acts. Prerequisite: 9 hrs ANTH or SOC.

450 Advanced Grammar Prerequisite: LIN 250.

451 Developments in English Grammar Theories of language structure with emphasis on Chomskyan generative grammar.

453 History of the English Language

466 Computational Linguistics Computational models for describing and recognizing natural languages.

494-495 Special Problems in Linguistics

Courses in Other Disciplines Applying to the LIN Requirements

PHL 220 Introduction to Symbolic Logic Modern theory of deductive inference. Emphasis on recognizing valid forms of reasoning.

CS 250 Theoretical Foundations of Computer Science Applied algebra; sets, relations and functions; groups. Boolean algebra and lattice theory, graph theory, finite sequential machines. Prerequisite: MA 142.

PHL 350 Philosophy of Language Recent philosophical questions arising from language and its uses. Primary topics include nature of meaning, reference and description of linguistic activity. Prerequisite: One PHL course.

CS 462 Introduction to Artificial Intelligence Problem-solving methods in artificial intelligence, heuristic programming; models of memory and cognition. Prerequisite: CS 310.

ANTH 508 Linguistics Historical development of theories, practice and field methods; current research in nonverbal communication, pragmatics, sociolinguistics, semantics.

UNIVERSITY OF ALBERTA
LINGUISTICS DEPARTMENT
FACULTY OF ARTS

Linguistics is defined as the scientific study of human language. Contrary to what many people think, a linguist is not necessarily someone who speaks several languages, but instead is a person who investigates scientifically some aspects of human language. Of course, many linguists do know more than one language simply because of their fascination with languages and their structures.

MAJOR REQUIREMENTS

The B.A. in Linguistics is designed to give the student a broad background in Linguistics. The program will include at least five full-course equivalents in Linguistics above the 200-level. These will include LIN 303, 382, 407/414, 409, 410, in addition to the distribution requirements of the Faculty of Arts. Consultation with advisers in the Department is always available to students who choose Linguistics as their first area of concentration.

COURSE DESCRIPTIONS

201 Introduction to the Study of Language I A general survey of the scientific study of language. Topics include attitudes and beliefs about language, origins of language, language compared to other animal communication systems.

202 Introduction to the Study of Language II A continuation of the general survey of the scientific study of language. Topics include the study of meaning, child language acquisition, and language change over time. Prerequisite: 201.

303 Introduction to Linguistics An introduction to the fundamental concepts, principles, and methods of formal linguistic description.

305 Practical Phonetics Recognizing, producing, and transcribing speech sounds using phonetic notation.

312 Introduction to Phonetics and Speech Science Articulatory phonetics; anatomy of speech and hearing; interpretation of sound spectrograms; models of speech production and perception.

382 English Syntax Prerequisite: 201 or 303.

400 Psycholinguistics An introduction to the issues and methods involved in the experimental study of language use. Prerequisite: 303.

401 Semantics The semantics of natural languages: sense, reference, speech acts, donation, connotation, semantic fields. Prerequisite: 382.

405 Historical Linguistics Principles and methods in the study of language change. Prerequisite: 303.

407 Linguistic Structures A data-oriented examination of morpho-syntactic structures in a variety of languages: problems, typology, universals. Prerequisite: 303.

408 Development of Modern Linguistic Concepts An examination of the fundamental concepts of 20th century linguistic thought. Prerequisite: 303.

409 Syntactic Theory Syntactic analysis and argumentation; extensions and revisions of classical transformational theory. Prerequisite: 303 and 382.

410 Phonological Theory Phonological analysis and argumentation, emphasizing the use of formal notation for rules and representations and related issues. Prerequisite: 303.

412 Acoustic Phonetics Acoustics of speech sounds: physical, articulatory, and perceptual aspects of the speech signal. Prerequisite: 312.

414 Field Methods Methods of eliciting and analyzing language data from a speaker of an unfamiliar language. Prerequisite: 303.

416 Language Acquisition Basic issues in language acquisition: theories, research methods, and major findings. Prerequisite: 303.

450 Second Language Acquisition Application of linguistics to theoretical issues in second language acquisition. Prerequisite or corequisite: 382.

471 History of Linguistics Topics in the history of linguistic scholarship to the end of the 19th century. Prerequisite: 303.

UNIVERSITY OF ARIZONA
LINGUISTICS DEPARTMENT
COLLEGE OF ARTS AND SCIENCES

Linguistics is a science concerned with the nature of human language. Individual linguists may concentrate their studies on a particular language or a small number of languages, but the ultimate goal is to acquire an understanding of the universal properties of human language.

MAJOR REQUIREMENTS

Thirty units in linguistics, including:

1. 101; 200; 300;
2. one year of course work in a non-Indo-European language;
3. Remainder taken in one of the following three tracks: General Linguistics, Theoretical Linguistics, Sociolinguistics/Applied Linguistics.

Majors are urged to continue their foreign language study beyond the minimum 16 credits required by the college.

MINOR REQUIREMENTS

Course work for the Supporting Minor is selected in consultation with the undergraduate advisor. A minor in linguistics requires a minimum of 20 units including 101, 200, and 300.

COURSE DESCRIPTIONS

101 Introduction to Linguistics Survey of linguistic concepts and methods; communication among animals; physiology of human speech; elementary phonetics, syntax, and language change; language and the brain; language and thought.

102 Linguistics for Native American Communities Introduction to descriptive linguistics for Native Americans, practical linguistic and social issues in Native American languages; phonetics and phonology; orthography; dialects and language change; classroom applications.

200 Fundamentals of Linguistic Analysis The basic nature of linguistic investigation with the aim of discovering some of the regularities of language structure. Prerequisite: 101.

203a-203b Elementary Navajo Language Speaking, reading, writing, understanding, and transcribing.

210 Native Languages of North America Genetic and typological diversity of North American native languages; areal features; i.e., characteristics spread over a geographical region; and the history of the study of these languages, concentrating on

individuals and the problems of classification.

260 Speech Science

276 The Nature of Language

300 Introduction to Syntax Fundamentals of syntactic analysis. Central notions of generative grammar.

303 Sex Differences and Language

307a-307b Elementary Language Speaking, reading, writing, and oral comprehension in the O'odham language.

320 Language and Social Issues Centrally concerned with the role of the individual as a language-using being.

376 Introduction to the Philosophy of Language

400 Foundations of Syntactic I Introduction to fundamental issues in the theory of syntax, including phrase structure, the opacity conditions, government, control, binding, thematic relations, and theory of logical form.

411a-411b Modern Japanese Grammar

414 Foundations of Phonological Theory I Principles which underlie current phonological theory, concentrating on the representation of sounds and the regular patterns of sound in natural language.

415 Phonological Phonetics Analysis of the acoustic and articulatory properties of sounds and patterns of sounds that occur in human language.

420a-420b Linguistic Structure of Modern Chinese

422 Linguistic Semantics and Lexicology Study of word and sentence meanings, relationship between the lexicon and the grammar, idioms, metaphor, etymology, and change of meaning. Prerequisite: one LIN course.

423a-423b Theory of Spanish Syntax

426 Introduction to Arabic Linguistics

427 Applied Spanish Linguistics

429 Pedagogical Linguistics: Applied Linguistics for Language Teachers

430 Language Variation Study of geographical and social dialects, stylistic differences and ideolectal variation and the implications of variation for writing grammars and for understanding language change. Prerequisite: one course in linguistics.

445a-445b Structure of a Non-Western Language In-depth linguistic analysis of selected phonological, syntactic, and semantic problems in an American Indian language, concentrating on native languages of the Southwest area. Prerequisite: 400, 412.

451 Acquisition of Speech and Language

461 Linguistics and the Study of Literature Linguistic methods in the analysis of literature and implications of literary language for linguistic theory,detailed consideration of prosody, metaphor, narrative technique and irony.

464 Formal Semantics

465 Pragmatics Study of language use, its relationship to language structure and context; topics such as speech acts, presupposition, implication, performatives, conversations.

473 Natural Language Processing

476 Language In Culture

477 Discourse and Text

480 Historical Comparative Linguistics

495 Colloquium

500 Linguistics for Non-Majors Conceptual foundations, methodology, and current theoretical frameworks. Students will carry out actual linguistic analysis. For Students in fields other than linguistics.

501 Foundations of Syntactic Theory II Continuation of linguistics 400, with an emphasis on recent literature.

502 Extended Categorical Grammar Introduction to categorical grammars and their extensions. Function and argument, relationship between syntactic and semantic types, functional composition and type-changing rules, application to natural language structures.

514 Foundations of Phonological Theory II Investigation of the evidence and arguments for nonlinear representations and of the organization of the phonological component of grammar, including evidence for its interaction with morphological structures and rules.

540 Language Change and Reconstruction Introduction to the methods in, theory of and problems in reconstruction of phonology, syntax, and semantics. Data will be drawn from a variety of the world's language families, but will concentrate on American Indian Languages and Languages with little or no written record.

544 Syntactic Analysis An examination of the syntactic diversity presented by natural human languages and an exploration of the issues that such diversity presents for syntactic analysis.

583 Sociolinguistics

600 Current Issues in Linguistic Research Current research in linguistics, with emphasis on relationships among syntax, semantics, and phonology.

UNIVERSITY OF ARKANSAS AT LITTLE ROCK
LINGUISTICS PROGRAM
ENGLISH DEPARTMENT

Linguistics is the study of language and language-related issues. Central to the study are many intriguing questions: How do children learn languages? How do different dialects form, and how do they relate to each other? How do languages change through time? What aspects of human languages are universal? These and many other interesting issues concerning language are dealt with in modern linguistics.

The linguistics minor is a flexible program which aims to give the student background in various areas of linguistic study. In addition, it encourages the student to probe studies in other related areas to broaden perspectives and to sharpen research skills. The linguistics minor should be of great interest and relevance to students in the areas of language, psychology, speech, communicative disorders, computer science, artificial intelligence, sociology, anthropology, and education, to name a few.

MINOR REQUIREMENTS

A minor in linguistics requires 21 hours selected from the following:

1. Required: ENG 3313

2. ENG Electives: at least three upper-level ENG Department linguistics courses from the following: 3311, 3312, 3314, 4100/4200 or 4370.

3. Knowledge of a foreign language is strongly recommended for the linguistics minor, and up to six foreign language credits (including sign language) may be applied to the linguistics minor.

4. Other Electives: up to three courses (9 credits) of language/linguistic elective courses from the following course descriptions below (excluding ENG 3311, 3312, 3313, 3314):

COURSE DESCRIPTIONS

SOC 2158 Statistics Laboratory A data analysis laboratory emphasizing calculators and computer use in statistics. Computer use will emphasize the SPSS package.

PSY 2310 General Psychological Statistics A general survey of statistical methods used in psychology, including both descriptive and inferential techniques. Prerequisite: MATH 1301.

SOC 2358 Social Interference and Statistics Basic statistical techniques and their corresponding theoretical premises, which are often used in statistical reasoning in sociology. Prerequisite: SOC 1300.

PSY 2440 Basic Statistics Basic statistical techniques used to design and analyze experiments in psychology, biology, and education. Prerequisite: MATH 1301.

ENG 3311 History of the English Language

ENG 3312 English Grammar and Syntax

ENG 3313 Introduction to the Study of Language An introductory linguistics course. Includes phonology, syntax, and semantics.

ENG 3314 Social and Regional Dialects English dialects.

PSY 3333 Experimental Design Prerequisite: PSY 2440.

COM 3360 Language and Speech Acquisition The study of normal verbal speech and language acquisition.

ANTH Linguistic Anthropology Introduction to the subfield of linguistic anthropology. Course examines the impact of linguistic structure on culture, intercultural and intracultural verbal and nonverbal communication.

COM 4366 Language Disorders A study of language disorders in adults and children. Prerequisite: COM 3360.

ENG 4370 Seminar (Linguistic topic).

UNIVERSITY OF BRITISH COLUMBIA
LINGUISTICS DEPARTMENT
FACULTY OF ARTS

At the undergraduate level the Department of Linguistics offers programs of study that lead to the degree of B.A. either with a Major in Linguistics or a Major in Speech Sciences.

MAJOR IN LINGUISTICS REQUIREMENTS

First and Second Year: Six units of a language other than English, at university level or equivalent.

First Year: LIN 100 is recommended.

Second Year: LIN 200.

Third and Fourth Years: LIN 300, 301, 319, 400, 401. At least six additional units from senior courses in linguistics, or with special permission, in a cognate field.

MAJOR IN SPEECH SCIENCES REQUIREMENTS

First and Second Years: MATH 100 or 111, and 101; PHYSICS 110 or 115; BIO 101 or 102.

First Year: LIN 100 is recommended.

Second Year: LIN 200; PSYCH 200.

Third and Fourth Years: LIN 300, 310, 315, 350, 400, 301 or 401. At least three additional units selected from: PSY 301, 304, 313.

NOTE: Students majoring in Speech Sciences should be aware that LIN 301, 319 and 401 are necessary for graduate studies in linguistics.

COURSE DESCRIPTIONS

100 Introduction to General Linguistics The nature of language; the major language families of the world. Linguistic change: languages and dialects; history of language. Universal features of language: Sound systems; the study of meaning.

200A/B General Linguistics: Phonology and Grammar (A)Introduction to phonetics and phonology: training in the identification and production of speech sounds. (B)Introduction to grammatical analysis: morphology and syntax; synchronic analysis and description.

300 Studies in Grammar I Generative Theories as applied to morphology, syntax and semantics. Prerequisite: 200 or ENG 329.

301 Studies in Grammar II More advanced studies in the areas covered in 300. Prerequisite: 300.

310 Phonetics Practicum Practice in the discrimination, production and description of sounds in a variety of languages. Prerequisite: 100 or 200 or 420 or ENG 329.

312 Introduction to Phonetics Articulatory phonetics. Phonetic alphabets. Identification and production of speech sounds. Not available for credit for LIN majors or students who have taken 200.

315 Biological Foundations of Language Some basic aspects of the speech chain: the anatomy of the speech mechanism, speech in relation to current linguistic theories. Prerequisite: 200.

319 Comparative and Historical Linguistics The nature and development of language ; the history of alphabetic writing: linguistic change; classification of languages. Prerequisite: 200.

320 Romance Linguistics The Indo-European background; Classical and Vulgar Latin; the origin, development and spread of the Romance languages.

330 Seminar in Linguistics (restricted to majors).

350 Language Acquisition in Children Introduction to the study of language acquisition in children: linguistic analysis of phonological, syntactic, and semantic stages of development. Prerequisite: 200.

400 Studies in Phonology I Generative theories as applied to morphophonology and phonology. Prerequisite: 200 or ENG 329.

401 Studies in Phonology II More advanced studies in the areas covered in 400. Prerequisite: 400.

405 Morphology Analytic problem-solving and discussion of theoretical questions concerning the development and present status of morphological theory.

415 Experimental Phonetics Introduction to the use of instruments for experimental phonetic research and to the design of phonetic and phonological experiments. Prerequisite; 310, 315.

420 Introduction to Linguistics General background to linguistic studies; the different approaches to the analysis of languages, phonetics, phonology, syntax, semantics, morphology.

425 Linguistic Theories of Translation Modern linguistic theories concerning translation; the evaluation of these by the study of samples of translation in various languages with emphasis on written translation.

427 Introduction to Semantics A/B (A) Lexical analysis: the linguistic sign, language and thought, semantic fields and componential analysis. Prerequisite: 300.

431 Field Methods: Phonology Prerequisite: 200, 300, and 400.

432 Field Methods: Morphology and Syntax Prerequisite: 200, 310, and 300.

433 North American Indian Languages

435 Language Typology and Universals Introduction to the typological and contrastive study of languages - phonology, morphology, syntax, and semantics.

440 Regional Linguistics Introduction to the diatopic study of language at the level of dialect; linguistic surveys, linguistic atlases.

445 Sociolinguistics The systematic study of language and social change; the social context of speech and the function of language varieties from the speakers' point of view.

UNIVERSITY OF CALGARY
LINGUISTICS DEPARTMENT
FACULTY OF SOCIAL SCIENCES

Linguistics is the scientific study of language as a universal human phenomenon. Linguistics investigate the structure of language, its relation to other systems of communication, the acquisition of first and second languages, language in its social context, the causes and effects of language change, and universal properties of language - those which are shared by all human languages.

The aim of the Bachelor of Arts program at Calgary is to provide the student major with a thorough introduction to the indispensable core areas of linguistic study (phonetic, phonology, morphology, syntax, and historical linguistics) while at the same time providing a program flexible enough to allow the student to develop a deeper understanding of an aspect of linguistics of his or her choice. This further emphasis nay be placed on theoretical studies or on applied linguistics, especially in the field of English as a Second Language or of Language Acquisition. At the same time, the program encourages the development of related or other interests outside the field of linguistics.

MAJOR REQUIREMENTS

Students wishing to major in Linguistics must complete at least seven and not more than ten full-course equivalents in this Field. These courses must include the following (or their equivalents): LIN 201, 203, 301, 303, 341, 353, 401 and 403. Majors are advised to take 401 and 403 in their third year if possible, as these courses may not be offered every year.

MINOR REQUIREMENTS

Students wishing to Minor in Linguistics may take a minimum of five or a maximum of six full-course equivalents in the field. These must include LIN 201 and 203 and either 301 or 303. Remaining courses in the program must be chosen in consultation with the departmental undergraduate adviser.

COURSE DESCRIPTIONS

201 Introduction to Linguistics I A survey of basic linguistic concepts, including: universals of language; articulatory phonetics and phonology.

203 Introduction to Linguistics II Language in historical and social contexts: writing systems; language change; language families and areas.

205 Foundations of Applied Linguistics I An introduction to linguistic concepts relevant in educational contexts: the nature of human language.

207 Foundations of Applied Linguistics II A continuation of 205, with special reference to: sounds and sound patterns of English. Prerequisite: 205.

215 Analysis of Native Languages Prerequisite: knowledge of Native languages.

301 Syntax I Introduction to syntax: grammatical and semantic relations, relationships among sentences, simple and complex sentences. Prerequisite: 201 and 203.

303 Phonology I Introduction to the theory and practice of phonological analysis. Prerequisite: 201 and 203.

305 Morphology An introduction to the study of word-structure. Inflectional and derivational morphology. Prerequisite: 201 and 203.

311 Language and Mind A consideration of recent work in linguistics as it bears on a theory of mind. NOTE: not open to majors for credit.

317 Applied Linguistics and Native Languages Prerequisite: 215.

321 Modern English Grammar Prerequisite: 201/203 or 205/207.

341 Phonetics Intensive practice in the perception, production and transcription of speech sounds. Prerequisite: 201 and 203.

353 Historical Linguistics Principles of language change and methods of linguistic reconstruction. Prerequisite: 201 and 203.

361 Introductory Semantics An introduction to the linguistic study of meaning. Prerequisite: 201/203 or 205/207.

371 Introduction to Sociolinguistics I The communicative competence of speakers in social context. The structure of speech events. Prerequisite: 201/203 or 205/ 207.

373 Introduction to Sociolinguistics II Social differentiation of language in terms of the socio-economic status, age, sex and ethnic group of speakers. Prerequisite 371.

381 The History of English Prerequisite: 201/203 or 205/207.

401 Syntax II A survey of current work in syntactic theory. Prerequisite: 301.

403 Phonology II An intermediate course in phonology dealing with distinctive features, abstract vs. concrete levels of representations. Prerequisite: 303.

405 Field Methods Prerequisite: 301, 303 and 341.

412 Linguistics and Teaching English as a Second Language Prerequisite: 201/203 or 205/207.

421 Advanced Articulatory Phonetics Human vocal tract anatomy and neuro-anatomy. Prerequisite: 341.

443 Child Language: Phonology, Morphology and the Lexicon An overview of children's acquisition of sound pattern and vocabulary of their native language. Prerequisite: 201/203 or 205/207.

445 Child Language: Syntax and Pragmatics An overview of children's acquisition of the syntactic structures of their native languages. Prerequisite: 201/203 or 205/207.

447 Linguistics and the Study of Reading Prerequisite: 201/203 or 205/207.

471 Language in Society The social matrix of language behavior. Interdisciplinary sociolinguistics. Prerequisite: 201/203 or 205/207.

473 Human Communication Verbal and nonverbal forms of communication, including mother-child interactions for cultural learning, body language, and analogues from animal communication. Prerequisite: 201/203 or 205/207.

500 Field Linguistics

511 Linguistic Analysis I

513 Linguistic Analysis II Prerequisite: 511.

521 Experimental Phonetics The human vocal tract and the physical nature, human perception and interpretation of speech sounds. Prerequisite: 303 or 341. Prerequisite: 303 or 341.

525 Topics in Second-Language Acquisition

531 Survey of Amerindian Languages Prerequisite: 530.

540 Indo-European Linguistics An introduction to the comparative study of older stages of the principal Indo-European languages, and the reconstruction of the proto-language.

543 Advanced Study in Child Language Prerequisite: 443 or 445.

561 Semantics in Generative Grammar Current issues in semantic theory and analysis. Prerequisite: 401.

581 History of Linguistics An account of major linguistic developments from antiquity to modern times. Prerequisite: 301, 303, and 353.

UNIVERSITY OF CALIFORNIA AT BERKELEY
LINGUISTICS DEPARTMENT
COLLEGE OF LETTERS AND SCIENCES

Linguistics is the study of language -- its general nature, those features which all languages have in common, the ways in which languages can differ from each other and the ways in which language changes in time.

Linguists apply their training to the study and description of language in general and of particular languages and families of languages, to the production of grammars and dictionaries, to the collection of texts and to language teaching.

The undergraduate major in linguistics introduces students to the traditions and techniques of research into the structure, functions, and histories of languages. Since the study of language draws from and contributes to many other fields of study, students choosing the linguistics major are strongly urged to achieve a more than superficial acquaintance with some related but independent field: anthropology, mathematics, computer science, philosophy, rhetoric, English literature, or the literature of a foreign language.

MAJOR REQUIREMENTS

The major consists of a five-course core (100, 110, 115, 120A, 130)which includes phonetics and phonology, syntax and semantics, morphology and language history and comparison.

Four or five other courses totalling twelve additional upper division units are added to the core through consultations between the student and a major adviser. Of these units, six must be selected from Linguistics Department listings. Linguistics majors who have completed core courses are encouraged to enroll in linguistics graduate courses whose prerequisites they satisfy. The remaining six upper division units must be related to linguistics.

Because the major varies greatly from student to student, each student is encouraged to plan a program of study with an undergraduate adviser and to see the adviser on a regular basis.

Linguistics majors who have completed the core courses are encouraged to enroll in linguistics graduate courses whose prerequisites they satisfy.

COURSE DESCRIPTIONS

1A-1B Elementary Swahili

2A-2B Elementary Language Tutorial

5 Language and Linguistics An introduction to the scientific study of language.

11 Writing Systems Examines different writing systems in terms of their historical origin and their cognitive properties.

16 The English Vocabulary

51 The Politics of Language The political uses of language. Dialects, prestige forms, male and female language.

52 Language in Literature An examination of some of the ideas about language that can be found in literary works.

53 Poetics Introduction to avant-garde and non-Western poetry. The application of contemporary linguistics to the study of poetry.

71 Development of the Chinese Language

90A-B Lower Division Seminar

100 Introduction to Linguistic Science A basic technical introduction to linguistic science. Practice in phonetics, production, and transcription. Prerequisite: 5.

110 Introduction to Phonetics and Phonology Description, transcription, and analysis of human speech sounds in their physiological and acoustic aspects. Prerequisite: 100.

111 Phonological Analysis Research methods in phonetics and phonology. Prerequisite: 110.

112 Phonological Theories A survey of the most significant theories and issues in phonology in the 20th century. Prerequisite: 110.

115 Morphology Analysis of word structure, including inflection, derivation, and compounding, in various languages. Prerequisite: 110.

120A Introduction to Syntax and Semantics I Introduction to the study of meaning and sentence structure. Prerequisite: 100.

120B Introduction to Syntax and Semantics II Intermediate syntax. Emphasizes the differences between the traditional transformational approach and the newer approach of the Government and binding theory. Prerequisite: 120A.

121 Semantics Basic logic for linguists. Basic speech act theory and pragmatics. Prerequisite: 120.

122 Language Typology and Linguistic Universals Issues in language typology and linguistic universals. An examination of various linguistic subsystems in different languages. Prerequisite: 120A.

123 Pragmatics The relation between language use and human actions. Prerequisite: 120A.

124 Discourse Language beyond the sentence. Global and local properties of connected speech and writing. Prerequisite: 5 or 100.

130 Comparative and Historical Linguistics Methods of reconstruction. Types and explanations of language change. Prerequisite: 110.

131 Indo-European Comparative Linguistics The affinities of the Indo-European languages and the reconstruction of their common ancestor. Prerequisite: 130.

140 Introduction to Field Methods Prerequisite: 110 and 115.

145 Introduction to Applied Linguistics Prerequisite: 100 and 120A.

150 Sociolinguistics The principles and methods of sociolinguistics. Topics include: linguistic pragmatics, variation theory, social and regional dialectology. Prerequisite: 100.

151 Language Variation Synchronic variation in phonology, syntax and semantics, and its implications for language change. Prerequisite: 100.

158 The Use of Computers in Linguistics Prerequisite: 100.

160 Biological Foundations of Language The dependence of language on biological attributes, considered by comparison of human and nonhuman communication.

170 The Structure of English

175 American Indian Languages

180 Introduction to Cognitive Linguistics An introductory survey of concepts used in cognitive linguistics. Topics include: schema theory, frame semantics, and the general theory of cognitive models.

181 Lexical Semantics Lectures and exercises in the descriptions of word meanings, the organization of lexical systems, the lexicalization of particular semantic domains (kinship, color, etc.). Prerequisite: 120A.

185 Metaphor The role of metaphor in structuring our everyday language, conceptual system, and world view.

UNIVERSITY OF CALIFORNIA AT DAVIS
LINGUISTICS PROGRAM
COLLEGE OF LETTERS AND SCIENCE

The discipline of linguistics encompasses a broad spectrum of knowledge about human language. Linguistics focuses on the description of contemporary languages and the study of language change through time. It also has important applications within many other disciplines such as anthropology, biology, communications, education, language teaching, literature, philosophy, psychology, and sociology.

The major is designed to familiarize students with the methods of linguistic analysis at gradually accelerated levels of methodological and theoretical complexity through a sequence of core courses. Elective courses allow the student to explore areas which overlap linguistics.

MAJOR REQUIREMENTS

1. Linguistics 1 or 135.
2. Foreign language, 20 units of Greek or Latin; or 22 units of any other language; or 30 units of two different languages.
3. Linguistics 109, 110, 111, 139, 140, 165 (24 units).
4. Linguistics 102 or 112.
5. Linguistics 100 or Anthropology 220.
6. At least 12 upper division units from the following courses: ANTH 117, 120; EDUC 117A; ENG 105A, 105B; FRE 159, 160, 161; Human Dev 101; ITAL 150; any other linguistics course not included in the 24 unit requirement above; PHIL 137; PSY 132; RHE 105, 107; RUS 160; SPAN 131, 132, 133.

MINOR REQUIREMENTS

The minor in Linguistics is designed to provide the student with a basic knowledge of linguistic analysis. It would be appropriate for students interested in language use. The minor consists of 24 units.

1. Linguistics 1, 109, 110 or 139, and 140 (16 units).
2. Additional units of upper division linguistics courses, chosen in consultation with an adviser (8 units).

COURSE DESCRIPTIONS

1 Introduction to Linguistics Introduction to the study of language; its nature, diversity, and structure.

100 Languages of East Asia Prerequisite: 1.

102 Historical Linguistics Description and methods of the historical study of language; sound change, morphological change, syntactic and semantic change. Prerequisite: 1 and 109.

105 German Phonology-Morphology Prerequisite: GER 4.

106 History of the German Language Prerequisite: 1.

109 Phonetics Articulatory phonetics with some attention to the fundamentals of acoustic phonetics.

110 Elementary Linguistic Analysis Analytical techniques of articulatory phonetics, phonemics, morphophonemics, and morphology. Prerequisite: 1 or ANTH 4.

111 Intermediate Linguistic Analysis More advanced work in phonemics, morphophonemics, morphemics, and tactics. Prerequisite: 110.

112 Comparative Linguistics Linguistic prehistory, historical linguistics and reconstruction. Prerequisite: 110.

113 Language and Sex Investigation of real and putative sex-linked differences in language structure and usage, with a consideration of some social and psychological consequences of such differences.

114 The Ethnography of Speaking Description and analysis of language usage in social context and of the sociocultural knowledge it reflects. Prerequisite: ANTH 2 or 4 and LIN 1.

115 Chicano Sociolinguistics Prerequisite: 1 and SPAN 3.

120 Semantics Introduction to the study of meaning: the nature of the linguistic sign, the structure of the lexicon, and the semantics of sentences. Prerequisite: 1.

138 Language Development Theory and research on children's acquisition of their native language including the sound system, grammatical structure, and social aspects of usage. Prerequisite: 1.

139 Phonological Analysis Introduction to and application of phonological theory. Prerequisite: 109.

140 Grammatical Analysis Introduction to syntactic analysis; survey of types of syntactic and semantic phenomenon in natural languages. Prerequisite: 1.

150 Contrastive Analysis of Spanish and English Prerequisite: 1 and SPAN 3.

165 Introduction to Generative Grammar Introduction to the theory of generative grammar; formalization; goals of linguistic theory. Prerequisite: 1 and 140.

170 Language Universals and Typology Investigation into common features of all human languages and the classification of languages in terms of their structural features. Prerequisite: 1, 140, and 165.

175 Biological Basis of Language Overview of issues in the field of neurolinguistics and techniques used to explore representation of language in the human brain. Prerequisite: 1.

192 Internship in Linguistics Prerequisite: 1.

UNIVERSITY OF CALIFORNIA AT IRVINE
LINGUISTICS PROGRAM
SCHOOL OF HUMANITIES

Linguistics is concerned with descriptions of human languages, with theories that seek to explain the nature of language, and with the various uses of language. Additionally, linguistics has potential relationships with other disciplines concerned with language. The undergraduate major in Linguistics offered by the school of Humanities and by the School of Social Sciences. The UCI campus programs are administered by Inter-School Linguistics Committee. Students are able to select a Linguistics major in either School according to their interests. A Linguistics minor is also offered.

MAJOR REQUIREMENTS

The undergraduate Program in Linguistics offered three options, designated as Track I (General Linguistics), Track II (Theoretical and Formal Linguistics), and Track III (Applied Linguistics: Language Teaching and English as a Second Language). Students may also major in Classics, French, German and Spanish with an emphasis in Linguistics.

Track I (General Linguistics) Track I may be taken through the School of Humanities or through the School of Social Sciences. 14 program courses are required, distributed as follows:

1. One introductory course in Linguistics (50 or Social Sciences 3).

2. Two upper division courses from each of the following five groups:

   a. Phonetics, Phonology, and Morphology (110-119) Syntax, Semantics, Pragmatics (120-129 Social Sciences 141 series) Historical Linguistics (130-139) Psycholinguistics (140-149 Social Sciences 142 series) Sociolinguistics (150-159) Applied Linguistics (160-169)

3. One year in a single foreign language other than the one used to meet the School of Humanities language requirement. Particularly a non-Indo-European language.

Track II (Theoretical and Formal Linguistics) Track II may be taken through the School of Humanities or through the School of Social Sciences. 14 program course are required, distributed as follows:

1. One introductory course in Linguistics (50 or Social Sciences 3)

2. Linguistics 40 (Acquisition of Language)

3. Six upper-division courses with emphasis in linguistics: 110, 112 (Phonetics, Phonology, and Morphology) 120, 122, 126/Social Sciences 141A, 141B, 141D (Syntax and Semantics) 142/Social Sciences 142A (Psycholinguistics)

4. Six upper-division elective courses in linguistics chosen from the following list: 114/Social Sciences 141G (Morphology) 124/Social Sciences 141C (Topics in syntax) 140 (Second Language Acquisition) 141/Social Sciences 142B, and 156E (Child Language) 144/Social Sciences 142D (Psycholinguistics) Social Sciences 151T (Auditory Perception) Information and Computer Science 162 (Formal Languages and Automata)

Track III (Applied Linguistics: Language Teaching and English as a Second Language) Students choosing Track III must meet the School of Humanities requirements. 14 program courses are required, distributed as follows:

1. One introductory course in linguistics (Linguistics 50 or Social Sciences 3)

2. Eight upper-division courses:
    - 110 (Phonetics, Phonology, and Morphology)
    - 120 (Syntax)
    - 140 (Second Language Acquisition)
    - 160 (Methods of Teaching English as a Second Language)
    - 162 (The Structure of English)
    - 164 (Bilingual Education)
    - 166 (Methods of teaching ESL/FL Reading and Writing)
    - 168 (Testing and Language Assessment)

3. Two upper-division elective courses in linguistics (chosen in consultation with the adviser)

4. One year in a single foreign language other than the one used to meet the School of Humanities language requirement. Particularly a non-Indo-European language.

Students are encouraged to consider a double major in Linguistics and either English or a foreign language. This is especially recommended for students choosing Track III.

MAJORS IN A FOREIGN LANGUAGE WITH AN EMPHASIS IN LINGUISTICS:

Students can also take a major in a foreign language with an emphasis in Linguistics.

MINOR REQUIREMENTS

1. Three core courses: 50 or Social Sciences 3; 110 and 120

2. Four additional upper-division courses in Linguistics.

COURSE DESCRIPTIONS

40 Acquisition of Language Theories about the learning of language by one-, two-, three-year-olds.

50 Introduction to Linguistics Linguistics analysis and language structures illustrated by languages from many areas of the world.

80 Language and Society: Speaking of Sex Recent sociolinguistic approaches to the expression of gender in language are scrutinized with a view to understanding how patriarchal social forms may be reflected in speech style and sex roles, and encourage discrimination.

110 Phonetics, Phonology, and Morphology General phonetics with emphasis on articulatory phonetics, including practice in phonetic transcription. Phonological and morphological analysis of data from a wide variety of languages. Prerequisite: 50.

112 Advanced Phonology and Morphology Phonological and morphological theories illustrated by analysis of data from a wide variety of languages. Prerequisite: 110.

114 Morphology and the Lexicon Study of the lexical representations of words; its relations with phonology, morphology, and syntax, with special emphasis on recent developments in the theories of morphology and syntax. Prerequisite: 110 and 120.

120 Introduction to Syntax Linguistic intuition, well-formedness, constituent structure, transformation, derivation, argument, and counter-example. Prerequisite: 50.

122 Advanced Syntax Syntax and theory of grammar. Constraints on what linguistic rules can do. The relationship between linguistic theory and language learning. Prerequisite: 120.

124 Current Topics in Syntactic Theory A small number of well-defined topics will be pursued intensively, with particular emphasis on recent articles that have had significant impact on the development of the theory of syntax. Prerequisite: 122.

126 Semantics Analysis of various proposals for the treatment of semantics in an integrated linguistic theory. The boundary between syntax and semantics.

130 Historical Linguistics Methods of historical analysis of language. Classification of languages and aspects of language change by internal reconstruction and the comparative method. Prerequisite: 50.

132 History of English

133 Indian Languages of the Americas Survey of Indian languages illustrating sound systems and structures. Linguistic affinities between North and South American languages. Prerequisite: 50.

139 History of Linguistics A course requiring at least 4,000 words of assigned composition based upon readings related to the history of linguistics. Linguistics majors are given admission priority.

140 Theories of Second Language Acquisition Research in the acquisition and learning of second and foreign languages. The influence of language acquisition theory on past and current teaching methodology. A comparison of first and second language acquisition. Prerequisite: 50.

141 Project in Child Language Begins with an intensive review of previous work on child language in which problems and methodology are discussed and projects specified. Remainder devoted to the projects and to discussing the problems and results which arise from doing them. Prerequisite: 146.

142 Introduction to Psycholinguistics Study of a particular topic in the psychology of language with particular emphasis on syntax and semantics. Prerequisite: 146.

143 Readings in Child Language Readings on language development organized around a number of special topics (to be determined). Emphasis on original reports of research, rather than on pre-digested textbook material. Prerequisite: 146.

144 Language and the Brain An analysis of current research on the biological bases of human linguistic capacity. Topics to be discussed include development, focusing on hemispheric specialization and plasticity; the localization of specific linguistic functions in adults, with an emphasis on the study of aphasias; the relation of linguistic capacity to general cognitive capacity, considering especially research on retardation. Prerequisite: 50.

150 Sociolinguistics Sociolinguistic varieties of language examined from different points of view: geographical, temporal, and cultural. Prerequisite: 50.

152 American Dialects Variability theory as applied to research in American dialects, especially phonological variation and sound change in progress. Prerequisite: 50.

154 Paralanguage and Kinesics Channels of nonverbal communication which correlate with speech. Extra-speech sounds and body movements.

160 Methods of Teaching English as a Second Language Methods and materials for teaching English to speakers of other languages. Includes methodology for teaching children, adolescents, and adults. Field experience required.

162 The Structure of English Prerequisite: 50.

164 Bilingual Education Philosophy, goals and basic principles of bilingual education. Current methodology used in bilingual education. Includes direct observation of bilingual classrooms in local schools. Prerequisite: 50.

166 Methods of TESL and Foreign Language Reading and Writing Theoretical background concerning native and non-native reading and writing processes. Discussion, demonstrations and critiques of methods, techniques, and materials for teaching reading and writing. Prerequisite: 50.

168 Testing and Language Assessment Nature of language assessment, types of language tests, English as a second language and foreign language test, basic testing statistics, development of tests for placement and specific situations. Prerequisite: 50.

UNIVERSITY OF CALIFORNIA AT LOS ANGELES
LINGUISTICS DEPARTMENT
COLLEGE OF LETTERS AND SCIENCE

The goal of linguistics is the enrichment of knowledge about the nature, grammar and history of human language. Linguistics is a theoretical discipline, akin to philosophy, anthropology and cognitive psychology. It is important for prospective students to understand that linguistics does not mean learning to speak many languages. Linguistics courses draw examples from the grammars of a wide variety of languages, and the more languages linguists know about in depth (as distinct from possessing fluency in the use of them), the more likely they are to discover universal properties. It is also possible to pursue these universal aspects of human language through the intensive in-depth study of a single language. This accounts for the high proportion of examples from English and familiar European languages found in linguistics courses and research publications.

The core areas of linguistic theory are phonology (with its roots in phonetics), syntax and semantics. A grammar is a system of rules which characterize the phonology, syntax and semantics of a natural language. The properties of grammars are the central focus of linguistic theory.

Because language is central to all humanistic disciplines, as well as to several social science areas, it is studied from many points of view. Linguistics itself cannot be said to have a uniform paradigm, a single optimal approach to the subject. Hence, the courses provide a variety of approaches which reflect the diversity of the field.

The majors described below are of three types:

1) a major which concentrates entirely on general linguistics;

2) several majors which combine the basic courses of the general program with a language concentration or other related fields;

3) a major which concentrates entirely on an African language area.

The combined majors in conjunction with teacher certification programs are especially appropriate for students who have non-university teaching careers as goals, and the African major is for students with specific African interests.

BA IN LINGUISTICS

This major is designed for students with an exceptional interest in and aptitude for the study of languages and linguistics. It enables the undergraduate to gain substantial familiarity with several languages and types of linguistic structure and to become conversant with the historical study of language and formal theories of linguistics.

Preparation

Completion of the equivalent of the sixth quarter in each of two foreign languages or the sixth quarter in one foreign language and the third quarter in one foreign language and the third quarter in each of two other foreign languages. In addition you must take Linguistics 1 and two of the following courses: Philosophy 31, Psychology 10, one course in cultural anthropology.

Major Requirements

Also, A minimum of eleven upper division or graduate courses including 100, 103, 110, 120A, 120B, and either 164, C165A or C165B. The remaining courses are electives, three of which must be upper division linguistics courses, to be selected subject to your adviser's approval. These electives have typically been selected from the following list, though it is not exhaustive: C104, 120B, 125, 127, 130, CM135, 140, M146, M150, 160, 164, C165A, C165B, 170, 175, C180, 195, 199, African Languages 190, Anthropology 143A, 143B, Philosophy 127A, 127B, 172, Psychology 122, 123, English 121, 122, or advanced courses in a foreign language or literature (beyond the sixth quarter of language instruction). In addition to the eleven upper division courses, at least three courses (which may be either upper or lower division) are required in a language other than those in the Romance, Slavic or Germanic families.

BA IN LINGUISTICS AND COMPUTER SCIENCE

Preparation

Linguistics 1, Computer Science 10C, 20, 30, Mathematics 31A, 31B, Philosophy 31, completion of the sixth quarter in one foreign language and the third quarter in a second foreign language. Mathematics 31A and 31 B must be passed with grades of C or better. Mathematics 61 is strongly recommended.

Major Requirements

Fourteen upper division courses as follows: 100, 103, C104, 120A, 120B either 164, C165A or C165B, C180, C185, one upper division elective in linguistics, Computer Science 111, or 181, 131, 132, 141, 163.

BA IN LINGUISTICS AND EAST ASIAN LANGUAGES AND CULTURES

Preparation

Completion of the sixth quarter in either Chinese or Japanese; Linguistics 1; Philosophy 31; one course in cultural anthropology; either East Asian Languages and Cultures 40A or 40B, as appropriate; completion of the sixth quarter in one other foreign language or the third quarter in each of two other foreign languages.

Major Requirements

100, 103, 110, 120A, 120B, either 164 C165A or C165B, one upper division elective in linguistics; specified courses in East Asian Languages and Cultures.

BA IN LINGUISTICS AND ENGLISH

Preparation

Linguistics 1, English 3, 10A, 10B, 10C, Philosophy 31, completion of the sixth quarter in each of two foreign languages or the sixth quarter in one foreign language and the third quarter in each of two other foreign languages.

Major Requirements

Fifteen upper division courses as follows: 100, 103, 110, 120A, 120B either 164, C165A or C165B, two upper division electives from other linguistics courses.

BA IN LINGUISTICS AND FRENCH

Preparation

Linguistics 1, French 1, 2, 3, 4, 5, 6, 12,. 15, completion of the sixth quarter in one other foreign language or the third quarter in each of two other foreign languages.

Major Requirements

Sixteen upper division courses as follows: 100, 103, 110, 120A, 120B, either 164, C165A or C165B, two upper division electives in linguistics, French 100A, 100B, 100C, 103, 105, 106, and two elective upper division French literature courses..

BA IN LINGUISTICS AND ITALIAN

Preparation

Linguistics 1, Italian 1, 2, 3, 4, 5, 25, Latin 1, 2, 3, completion of the third quarter in one other foreign language or the sixth quarter in Latin, Philosophy 31, one course in cultural anthropology.

Major Requirements

Thirteen upper division courses as follows: 100, 103, 110, 120A, 120B either 164, C165A or C165B, two upper division electives in linguistics, Italian 102A, 190 and three additional upper division electives in Italian.

BA IN LINGUISTICS AND PHILOSOPHY

Preparation

Linguistics 1; Philosophy 31 and two courses from 1, 6, 7, 21; completion of the sixth quarter in each of two foreign languages or the sixth quarter in one foreign language and the third quarter in each of two other foreign languages.

Major Requirements

Fourteen upper division courses as follows: 100, 103, 120A, 120B C165B, three upper division electives in linguistics; six upper division courses in philosophy, including at least five from Philosophy 126A through 135, 170, 172, 184, 186, 187, 188, of which at least two must be from 127A, 127B, 172.

BA IN LINGUISTICS AND PSYCHOLOGY

Preparation

Linguistics 1; Psychology 10, 41, 42, completion of the sixth quarter in one foreign language and the third quarter in a second foreign language. Computer Science 10S is strongly recommended.

Major Requirements

Fourteen upper division courses as follows: 100, 103, 120A, 120B, 130, 195, two upper division electives in linguistics; Psychology 110, 120, 121, 122 or 123, 130 and a Psychology elective.

BA IN LINGUISTICS AND SCANDINAVIAN LANGUAGES

Preparation

Linguistics 1, Scandinavian 1, 2, 3, 4 and 5, or 11, 12, 13, 14 and 15, or 21, 22, 23, 24 and 25, 30, completion of the sixth quarter in one other foreign language or the third quarter in each of two other foreign languages.

Major Requirements

Fourteen upper division courses as follows: 100, 103, 110, 120A, 120B, either 164, C165A or C165B, two upper division electives in linguistics, Scandinavian 105 and 106 or 110 twice, 199, and three upper division electives in Scandinavian.

BA IN LINGUISTICS AND SPANISH

Preparation

Linguistics 1, Spanish 1, 2, 3, 4, 5, 25, M42, M44, completion of the sixth quarter in one other foreign language or the third quarter in each of two other foreign languages.

Major Requirements

Fifteen upper division courses as follows: 100, 103, 110, 120A, 120B either 164, C165A or C165B, two additional upper division courses in linguistics, Spanish 100A, 100B, 115 or 118A, 119A, 119B, and three additional upper division courses in Spanish.

BA IN AFRICAN LANGUAGES

Preparation

Linguistics 1 and nine courses from African Languages 1A through 42C and 199 (six in one language and three in another).

Major Requirements

A minimum of fifteen upper division courses, including three courses in an African language; African Languages 150A-150B, 190, 192; Linguistics 100, 103; and various electives.

COURSE DESCRIPTIONS

1 Introduction to the Study of Language A summary of what is known about human language, its structure, its universality and its diversity; language in its social and cultural setting; language in relation to other aspects of human inquiry and knowledge.

10 The Structure of English Words

100 Introduction to Linguistics An introduction to the theory and methods of linguistics: universal properties of human language; phonetic, phonological, morphological, syntactic, and semantic structures and analysis; the nature and form of grammar.

103 Introduction to General Phonetics Prerequisite: 100. The phonetics of a variety of languages and the phonetic phenomena that occur in languages of the world. Extensive practice in the perception and production of such phenomena.

C104 Experimental Phonetics Prerequisite: 103. Survey of the principal techniques of experimental phonetics. Use of laboratory equipment for recording and measuring phonetic phenomena.

110 Introduction to Historical Linguistics Prerequisite: 100, 103. The methods and theories appropriate to the historical study of language, such as the comparative method and method of internal reconstruction. Sound change, grammatical change, semantic change.

114 American Indian Linguistics Survey of genetic, areal, and typological classifications of American Indian languages; syntax; writing systems for American Indian languages; American Indian languages in social and historical context.

120A Linguistic Analysis: Phonology Prerequisite: 100, 103. Descriptive analysis of phonological structures in natural languages; emphasis on insight into the nature of such structures rather than linguistic formalization.

120B Linguistic Analysis: Grammar Prerequisite: 100. Descriptive analysis of morphological and syntactic structures in natural languages; emphasis on insight in to the nature of such structures rather than linguistic formalization.

125 Semantics Prerequisite: 120B. A survey of the most important theoretical and descriptive claims about the nature of meaning.

127 Syntactic Typology and Universals Prerequisite: 100. A study of the essential similarities and differences among languages in the grammatical devices.

130 Child Language Acquisition: Introduction Prerequisite: 100, 120A, 120B. A survey of contemporary research and theoretical perspectives in the acquisition of language. Emphasis on linguistic interpretation of existing data, with some attention to relationship with second-language learning, cognitive development, and other topics.

C135 Theoretical Issues in Disorders of Language Development Prerequisite: 1 or 100, 130. Introduction to the field of language disorders of children. The course deals primarily with some clinical syndromes which are associated with delayed or deviant language acquisition: aphasia, autism, mental retardation.

140 Linguistics in Relation to Language Teaching Prerequisite: 120A, 120B. Particular focus on the special problems entailed in the teaching of non-European languages.

M146 Language in Culture The study of language as an aspect of culture; the relation of habitual thought and behavior to language; and language and the classification of experience.

M150 Introduction to Indo-European Linguistics Prerequisite: one year of study of either Greek or Latin and either German or Russian. A survey of the Indo-European languages from ancient to modern times; their relationships and chief characteristics.

164 Modern Theories of Language Prerequisite: 120A, 120B or 127. A critical and historical survey of some of the central claims and types of supporting evidence put forward by transformational theory and by at least one other influential school of contemporary linguistics.

C165A Linguistic Theory: Phonology Prerequisite: 120A. The theory of generative phonology; the form of phonological rules; formal and substantive phonological universals.

C165B Linguistic Theory: Grammar Prerequisite: 120B or 127. The form of grammars; word formation and sentence formation; formal and substantive universals in syntax; relation between syntax and semantics.

170 Language and Society: Introduction to Sociolinguistics Prerequisite: 100. Study of the patterned covariation of language and society; social dialects and social styles in language; problems of multilingual societies.

175 Linguistic Change in English

M176 Introduction to the Structure of Japanese

C180 Mathematical Backgrounds for Linguistics Prerequisite: 120A, 120B. Prior mathematics knowledge is not assumed. Introduction to selected topics in set theory, logic and formal systems, modern algebra and automata theory, with elementary applications to linguistics.

185 Introduction to Computational Linguistics Overview of the field and discussion of some applications, focusing on computational models and parsing algorithms, including transition networks and chart parsers.

UNIVERSITY OF CALIFORNIA AT RIVERSIDE
LINGUISTICS PROGRAM
HUMANITIES AND SOCIAL SCIENCES

Linguistics is the science of language. It seeks to discover the psychological and motor mechanisms of human speech, the similarities and differences among languages, how languages change, and the way in which language is acquired.

MAJOR REQUIREMENTS

1. LIN 20.
2. 24 units consisting of LIN 111, 121, 141, ANTH 120, 123, and PSYCH 170, or PHIL 191T(Semantics).
3. At least 12 additional units forming a coherent program of study, to be chosen in consultation with an adviser and with the approval of the Linguistics Committee, to bring the total of requirements 2 and 3 to at least 36 upper division units. The additional courses may be in linguistics or in related fields. They may relate either to a particular field or specialization or to general linguistics.
4. Foreign language proficiency equivalent to six quarters (24 units) of study, including at least third-quarter proficiency in one language. Students may arrange with the chair to satisfy this requirement by examination.

COURSE DESCRIPTIONS

20 Language and Linguistics Introduction to modern linguistics. The nature of language; language structure; grammars; the languages of the world; historical and comparative linguistics.

21 Grammar

111 Phonetics Practice in pronouncing and recognizing sounds from many languages. Prerequisite: 20.

112 Acoustic Phonetics Emphasizes theoretical problems of acoustic phonetics. Prerequisite: 111.

121 Syntax Survey of various approaches to syntax, including transformational. Prerequisite: 20.

131 Morphology Studies word structure, the lexical component of language, types of morphemes. Prerequisite: 20, 111 or 121.

141 Phonology Introduction to the study of functional sound units in speech, including phonotactics, morphophonemics. Prerequisite: 111.

160 _Topics in Dynamic and Comparative Linguistics_ Prerequisite: 111, and 121 or 141.

185 _Linguistic Theories_ Prerequisite: 111 and 141 or 121.

191 _Seminar in Linguistics_

UNIVERSITY OF CALIFORNIA AT SAN DIEGO
LINGUISTICS DEPARTMENT
DIVISION OF SOCIAL SCIENCES

Linguistics is the study of language. Like other rapidly developing fields, linguistics resists simple classification in to one of the traditional categories of academic disciplines. As one of the humanities, linguistics is concerned with the historical development of a particular language or language family, or with the relation between language and literature. As a social science, linguistics may be related to anthropology, in describing language as part of culture; or it may be related to psychology, in describing language as a kind of human behavior. One branch of linguistics, phonetics, may even be considered a natural science, related to the physical science of acoustics and the biological sciences of anatomy and physiology. As an applied science, linguistics has found many applications in fields as far apart as language pedagogy, speech therapy and computer programming. Finally, linguistics may be considered a formal science in its own right, related to mathematics and formal logic.

The Department of Linguistics at UCSD also offers elementary and intermediate instruction in a variety of foreign languages.

THE MAJOR PROGRAM

An undergraduate major in linguistics is intended to give students the background that will best prepare them for graduate work in this field. Because linguistics shares its object matter -- language -- with so many other disciplines, this major is unlike many others in that it does not require that all courses be taken in the major department itself. The major in linguistics will consist of twelve upper-division courses: eight courses in the Department of Linguistics (including 110, 111, 120, 121, 130), complemented by four other courses in linguistics and/or from other departments, directly related to the study of linguistics.

Linguistics 110, 111, 120, 121 and 130 are required of all majors.

All linguistics majors must satisfy the two language requirements defined below.

LANGUAGE REQUIREMENT I

The student must achieve proficiency in French, German, Spanish or Russian.

LANGUAGE REQUIREMENT II

The student must achieve competence in at least one additional foreign language. Competence is defined as successful completion (with grades of C or better) of three four-unit courses or the equivalent in a second language.

THE MINOR PROGRAM

The linguistics minor consists of six courses: Linguistics 10, 110, 111, 120 and 121 plus one additional upper-division course in linguistics.

The Revelle College minor requirements are slightly different.

COURSE DESCRIPTIONS

5 Introduction to Language An interdisciplinary approach to language. Topics, which vary from year to year, will be drawn from: languages of the world and the origin language; the role of language in thought, advertising, law, communication, literature, social interaction, and mystical experiences; spoken and visual languages; and the question of whether other species can learn human language. Intended for non-majors.

10 Introduction to General Linguistics A general introduction to language and linguistics. Language as an instrument of communication. Aspects of the structure of English and other languages.

63 Language of the Computer Differences between human and computer languages. Overview of UNIX and the roles played by hardware and software.

103 Language and Consciousness Language and how it influences our perception of the universe; the Sapir-Whorf hypothesis. Psychological, physical and linguistic aspects of space/time.

105 Law and Language The interpretation of language in understanding the law: the language of the courtroom interaction; language-based issues in the law; written legal language.

110 Phonetics Basic anatomy and physiology of the mechanisms used in speech. Acoustic phonetics and speech perception.

111 Phonology Examination of phonological structure of natural languages. Exercises in phonological description.

115 Advanced Phonology Prerequisite: 111. Current approaches to the sound structure and morphology of languages. Topics discussed may include suprasegmental as well as segmental phonology.

120 Grammatical Structure Basic introduction to lexical, morphological and syntactic structure. The course surveys representative lexical and grammatical phenomena drawn from a variety of typologically and genetically distinct languages of the world.

121 Syntax Introduction to the syntax of natural languages, with special reference to English. The empirical justification of syntactic analyzes. Emphasis on problem solving and argumentation.

125 Advanced Syntax Prerequisite: 121. Topics in the syntax of English and other languages. Syntactic theory and universals.

130 Semantics Introduction to the study of meaning. Survey of approaches to the analysis and description of semantic structure. Formal semantics and its application to natural language.

141 Language Structures Detailed investigation of the structure of one or more languages. Languages and language families likely to be examined include Albanian, Austronesian, Chinese, Germanic, Japanese, Luiseno, Old Icelandic, Romance, Samoan, Slavic, Uto-Aztecan, Yuman and others.

142 Language Typology The systematic ways languages differ. Crosslinguistic studies of specified topics in an effort to develop models of language variation.

143 Romance Linguistics Topics concerning the history or structure of the Romance languages. A survey of major syntactic, semantic or phonological processes in one or more of these languages.

145 American Indian Linguistics A survey of American Indian languages, their genetic relationships and areal groupings. Specific languages and families are selected for more detailed discussion, illustrating questions of relevance to linguistic theory and analysis, sociolinguistics and applied linguistics.

147 Classical Languages An investigation of the phonology, morphology and syntax of Sanskrit, classical Greek or Latin. Reading and translation of selected texts

150 Historical Linguistics Introduction to the concepts and methodology of historical linguistics.

151 Language History Examination of the historical development of one language or a group of related languages.

154 History of English

160 Formal Linguistics Mathematical foundations of the formal syntax of natural languages. Introduction to the theory of formal languages, in particular context-free languages, and its relation to automata theory.

163 Computational Linguistics Topics variable, and may include: parsing theory; computational models of grammar; software tools for language analysis; UNIX operating system; SNOBOL4 and LISP programming languages.

170 Psycholinguistics The study of models of language and of language acquisition from the point of view of modern linguistics and psychology. Basic experimental method as applied to language.

172 Language and the Brain Basic neuroanatomical and neuropsychological aspects of normal and abnormal language.

175 Sociolinguistics The study of language in its social context, with emphasis on the different types of linguistic variation and the principles underlying them.

177 Theories and Methods of Foreign Language Acquisition This course will examine linguistic, psychological and pedagogical arguments that underlie various language teaching programs.

182 Linguistics and Poetics Formal poetics, a linguistic approach to various forms of literature. Fundamentals of linguistics will be related to various current theories of literature.

184 Orthography The development and structure of writing systems. The relation between the orthography of a language and its phonology and morphology.

UNIVERSITY OF CALIFORNIA AT SANTA BARBARA
LINGUISTICS PROGRAM
COLLEGE OF LETTERS AND SCIENCE

The study of linguistics focuses principally on the syntactic, phonological, and semantic structure of natural languages and how this structure changes through time. The study of language with respect to its acquisition and use, raises questions pertinent to such areas as sociolinguistics, psycholinguistics, and anthropological linguistics. The BA in Linguistics provides a useful background, not only or advanced work in the field, but also for related graduate study in anthropology, sociology, speech, psychology, philosophy, education, and languages.

After completing specific prerequisites, students with a bachelor's degree in linguistics are eligible to pursue a California teaching credential. Interested students should discuss their plans as soon as possible with the credential adviser in the Graduate School of education. A certificate in English as a Second Language may be earned in another institution with approximately one year of additional study, opening the possibility of teaching in a variety of domestic and international bilingual programs.

MAJOR REQUIREMENTS

Forty-seven or 48 upper-division units in linguistics, including 101, 110-A-B, 111A-B, 113A, 121A-B-C, and either Semitic 120A-B-C or Linguistics 120A-B. Recommended courses include Philosophy 100C, 108, 150C, 183, 184, 185; Psychology 101, 127; Sociology 101, 136; Speech 122, 153; foreign language courses; all upper-division linguistics courses.

COURSE DESCRIPTIONS

1 ESL: English Skills Review

2 ESL: Basic Writing

3 ESL: Beginning College Composition

3G ESL: Graduate Writing

4 ESL: Self-Paced

5 ESL: Oral Practicum

6 ESL: Advanced Oral Practicum

7 ESL: Teaching Assistant Workshop/Practicum

8 ESL: Oral Practice for Graduate Students in Science

9 ESL: Pronunciation

10 ESL: Graduate Science Writing

20 Language and Linguistics An introduction to the scientific study of language: the nature of language structure; the social and cultural function of language; the origin and the learning of language; language change and the reconstruction of languages at earlier stages.

100 Languages and Their Speakers The languages selected for discussion will be representative of the language families and geographical regions of the world.

101 Basic Elements of Linguistic Analysis A typologically-oriented course designed to demonstrate how linguists analyze languages.

110A-B Introduction to Syntax Prerequisite: 101.

111A-B Introduction to Phonology Prerequisite: 101.

113A-B Introduction to Semantics consideration of semantic fields, the role of logic, and the underlying structure of language. Investigation of presupposition, entailment, synonymy, etc. Prerequisite: 101.

114 Introduction to Historical Syntax The course focuses on syntactic change. Empirical data will be drawn form a large variety of languages in order to arrive at significant generalizations in historical syntax.

115 Mathematical Models in Linguistics Introduction to formal grammars and automata as applied to the analysis of the phonology and syntax of natural languages.

120A-B Historical-Comparative Linguistics An introduction to linguistic change, genetic classification of languages, and methods of reconstructing parent languages. Prerequisite: 111A.

121A-B-C Field Methods Workshop format with native speaker of a non-Indo-European language as informant. The students will analyze the phonological. Prerequisite: 110A and 111A-B.

125 Introduction to Acoustic Phonetics Prerequisite: 111A.

130 Language and Culture

131 Language and Society

132 Sex Roles and Language

133 Studies in Sexism and Language Designed as follow-up to Linguistics 132, this course will be a workshop/discussion with outside readings and research required of the students. Prerequisite: 132.

135 California Indian Languages Survey of native languages of California: linguistic relationships within California and connections to non-California languages; Language and culture areas; linguistic aspects of culture; grammatical characteristics of several languages.

136 Introduction to African Languages and Cultures

137 Structure of Bantu Languages Prerequisite: 136.

138 Linguistics and Prehistory

140A Introduction to Sign Languages of the World

140B Sing Languages of the World: Linguistic Structure The course concentrates on comparison the the formational, morphological, syntactic, and semantic structures of sign languages. Prerequisite: 140A.

142 History of Linguistic theory Prerequisite: 20.

150 Survey of Applied Linguistics Prerequisite: 20.

155 Applied Rhetoric: Acquiring and teaching Writing Skills Prerequisite: 20.

157 Teaching Reading to Second Language Learners Prerequisite: 20.

160 The Structure of English Prerequisite: 20 or 101.

165 First Language Acquisition Prerequisite: 20.

166 Second Language Acquisition Prerequisite: 20.

168A Issues in Applied Linguistics: Curriculum and Materials Development Prerequisite: 166.

168B Issues in Applied Linguistics: Communicative Competence and Discourse Prerequisite: 166.

168C Issues in Applied Linguistics: Contrastive Analysis and Error Analysis Prerequisite: 166.

175 Introduction to Romance Linguistics

184 Evolution of Language

185 Animal Communication

186 Language and the Brain

190A Language Universals: Phonology Prerequisite: 111A.

190B Language Universals: Syntax and Semantics Prerequisite: 110A.

UNIVERSITY OF CALIFORNIA AT SANTA CRUZ
BOARD OF STUDIES (=DEPT)
COWELL COLLEGE

Linguistics is the most exact and structured discipline in the humanities. Because the study of language is an empirical science, it has a closer connection with both the social and the natural sciences than any other humanistic discipline. Various observable aspects of language provide an empirical basis for scientific study: the study of speech sounds and the vocal mechanisms which produce them forms the foundation for the study of language as a signalling system, as well as for a number of interdisciplinary fields. The study of the structure of words and of the structure of sentences constitutes an investigation of knowledge systems acquired by the speakers of languages, and consequently is closely allied with cognitive and developmental psychology. the study of language as an aspect of culture (in particular as a cultural tradition passed from one generation to another) is a major branch of anthropology. The study of language as a social phenomenon has common concerns with sociology, social psychology, and education.

MAJOR REQUIREMENTS

Required courses are 51, 52, 53, 101, 102, 113, 116, 140.

In the senior year each linguistics major must either write a senior thesis, complete a special senior project, or pass the senior comprehensive examination.

MAJOR TRACKS

There are four specific subprograms in the linguistics major; these are briefly described below. It is not necessary for a student majoring in Linguistics to enter one of these subprograms; they are designed to provide specific guidance in the pursuit of a course of study in one of the particular areas which, because of strengths within the Linguistics Board or in other UCSC programs, are particularly suitable for concentration.

All subprograms include the requirements for the linguistics major: courses 51, 52, 53, 101, 102, 113, 116, 140, and upper-division electives.

Psycholinguistics Track

Theoretical Linguistics Track

Applied Linguistics Track

Computational Linguistics

MINOR REQUIREMENTS

The minimum requirements for a minor in linguistics are courses 51, 52, 103, 101, 113, and four additional upper-division courses in linguistics (or approved substitutes).

COURSE DESCRIPTIONS

20 Introduction to Linguistics An introduction to the study of grammatical structure and survey of major areas of linguistic study. Insights of modern and traditional grammar, language structure, relations, and change; and descriptive and analytical methods of modern linguistics.

51 Phonetics Practical training in hearing and recording sounds in a wide range of phonetic systems. Study in techniques of using an informant.

52 Syntax I An introduction to transformational syntax and syntactic investigation.

53 Semantics I Introduction to transformational syntax and syntactic investigation, developed through the study of central aspects of English syntax. A major purpose is to introduce students to the study of language as an empirical science.

80A Languages of the World Focus on the study of language from anthropological and historical perspectives.

80B Modern English Grammar

80C Language, Society, and Culture The study of language form a sociological perspective. Multilingualism, language change and variation, pidgins and creoles, the origin and diversification of dialects.

101 Phonology I Introduction to morphology and phonological theory and analysis.

102 Phonology II Autosegmental phonology.

113 Syntax II Further aspects of English syntax; universal and language-particular constraints on syntactic structures and rules. Further developments and extensions of transformational theory. Prerequisite: 52.

116 Semantics II Major issues in natural language semantics: nature of lexical entries, thematic relations, propositional representation or "logical form"; relation between semantic interpretation and syntactic representations, quantification and scope relations, reference and presupposition, coreference and anaphoric relations. May be repeated for credit. Prerequisite: 52 and 53.

118 Semantics III Introduction to Montague semantics.

119 Topics in Semantics and Pragmatics

140 Language Change Methods and problems in the study of change in linguistic systems.

141 The Indo-European Language Family A synchronic investigation of the phonologies and grammars of four salient Indo-European languages; Sanskrit, Greek, Latin, and gothic. Prerequisite: 51 and 102.

160 Topics in Computational Linguistics

161 Natural Language Processing Introduction to the computer simulation of the process of natural language understanding.

182 Structure of Spanish The phonology, morphology, and syntax of Spanish, studied form a modern linguistic perspective. Knowledge of Spanish useful, but not required.

UNIVERSITY OF CHICAGO
LINGUISTICS DEPARTMENT
COLLEGE OF HUMANITIES

The purpose of the undergraduate program in Linguistics is to provide a solid, integrated introduction to the core subdisciplines of linguistics, as well as a language background sufficient to provide a data base for the theoretical parts of the program. This introduction provides students with a general orientation and overview of the field and prepares them for productive advanced study in linguistics.

CORE COURSES

"Introduction to Linguistics" (Linguistics 201, 202, 203) is the prerequisite for the other six core courses: "Syntax I and II" (204, 205), "Phonetics" (206), "Phonology I" (208), "Phonology II" (209), and "Morphology and Syntax" (210).

MAJOR REQUIREMENTS

The BA degree requirements in Linguistics are (a) Linguistics 201, 202, 203 (usually taken during the second year), (b) four of the six other core courses (usually divided between the third and fourth years), (c) six courses in a foreign language (French, German, or Russian), and (d) three additional language courses, of which three should be in a non-Indo-European language, an Indic language, or Hittite. Linguistics students often take additional linguistics courses and electives or courses in overlapping fields such as anthropology, information science, philosophy, or sociology.

JOINT DEGREE PROGRAM

The core curriculum closely follows the basic program for the MA degree in the Linguistics Department. Students interested in applying for the joint BA/MA should apply at the start of the spring quarter of their third year and must have completed Linguistics 201 and 202. Jointly degree program students take all of the remaining core courses. Their knowledge of the core courses' content is tested in the Qualifying Examination given late in the Spring Quarter. The remaining additional requirement is the MA essay.

The joint degree program reflects a history of substantial undergraduate participation in the affairs of the graduate Department of Linguistics. Qualified students are encouraged to register for advanced courses.

COURSE DESCRIPTIONS

201-2-3 Introduction to Linguistics I,II,III An introductory survey of methods, findings, and problems in areas of major interest within linguistics, and the relationship of linguistics to other disciplines.

204-5 Syntax I,II A two-quarter sequence devoted to detailed study of the major syntactic phenomena of English, combined with exposition and critical evaluation of the principal accounts of phenomena proposed by transformational grammarians.

206 Phonetics Speech sounds will be discussed with reference to articulatory mechanisms, distinctive features, and acoustic properties.

208 Phonology I An introduction to general principles of phonology, with emphasis on non-generative theory. Prerequisite: 203, 206.

209 Phonology II Introduction and detailed study of the principles of generative phonology, emphasizing the role of formalism and abstractness in phonological analysis.

210 Morphology and Syntax Linguistic structure and patterning beyond the phonological level.

212 Language in Culture and Society How we understand the social activity of speaking (and its equivalents): language as a system of signs, as a socially shared organization of cognitive categories.

213 Historical Linguistics Theory and practice of genetic comparison and reconstruction; linguistic variation. Prerequisite: 206, 208, 209.

216 An Introduction to Language Development The major issues involved in first language acquisition. The child's production and perception of speech sounds, acquisition of the lexicon, comprehension and production of structured word combinations and ability to use language communicatively.

217 Experimental Phonetics Each year a topic in physiological, acoustic or auditory phonetics is selected. Prerequisite: 206.

219 Phonetics of Intonation An investigation of phonetic theories on the international structure of language with special focus on English. Prerequisite: 206.

311 Language in Culture An intensive introduction to basic concepts in the analysis of language in social and cultural context: code, levels of structure, language use as social action, variation and its sources, and naive ideas about language.

324 Models of Verbal Interaction The central issue addressed is the relation between linguistic form, situated communication, and phenomenological, and native ideological models of language. Prerequisite: 311.

366 Explorations in Poetic Language

376 Psychology of Language Topics include language production, comprehension, acquisition; language and thought; language use; gestures; language in non-human species; and language in artificial systems.

380 Human Linguistics An introductory course surveying some major linguistic and communicative phenomena in an approach that seeks integration with the rest of science.

393 Recent Theories of Morphology

409 Child Phonology An exploration of the research on the acquisition of the sound system of language.

424 Introduction to Comparative Afro-Asiatic Linguistics An assessment of the possibilities of reconstruction of Afro-Asiatic, concentrating on Semitic, Cushitic and Egyptian data.

264-6 Elementary Albanian I,II,III

301 Introduction to Indo-European Linguistics

344 Comparative Greek and Latin Grammar

346-8 Reading and Grammar of a Celtic Language

201-3 Introductory Modern Hebrew I,II,III

204-6 Intermediate Modern Hebrew I, II, III

217 Introduction to Yiddish and Eastern European Yiddish Culture

221-3 Elementary Georgian I,II,III

374 Classical Yucatec An introduction to the structure of Yucatec Maya as spoken during the colonial period, including a practicum in the translation of documents from the same period.

UNIVERSITY OF COLORADO
LINGUISTICS DEPARTMENT
COLLEGE OF ARTS AND SCIENCES

The undergraduate major stresses the study of language as a basic human faculty and as a changing social institution. It provides a general education valid in its own right or as a background for further studies in linguistics or in other areas in which language plays a role such as social sciences, communication, computer science, law, or education.

The core of the major is a set of courses on the nature of language taught in the Linguistics Department. In addition, the major draws on courses offered in other areas of the University.

Majors in Linguistics must complete a total of 45 hours of study in general linguistics, a natural language, and appropriate language-related electives. Language study, and some of the elective hours, may be taken in other departments. The hours in general linguistics are intended to give students an introduction to the basic theory which underlies the scientific study of language. The study of a natural language is intended to give students a conscious awareness of the phenomena that linguistic science describes and seeks to explain. The language-related electives are intended to acquaint students with other theoretical or disciplinary perspectives on the phenomena that linguistics studies.

MAJOR REQUIREMENTS

1. LIN 2000; 1000 or 2200; 3430 or 3500; 4030; 4410; 4420; 4570 (21hrs).

2. Natural Language: Students must complete a minimum of 15 semester hours of study of a natural language. All hours offered in satisfaction of this requirement must be in a single language and at the 2000 level or above. The natural language requirement is waived for foreign students whose native language is not English.

3. Electives: A minimum of 9 elective hours must be completed. One course chosen from the following list:

   ANTH 4810 Language and Culture

   COMM 4210 Psychology of Communication

   CDSS 3006 Introduction to Speech and Hearing Science

   PHIL 3490 Philosophy of Language

   PSYC 4220 Psycholinguistics

SOCY 3121 Sociology of Language Two other linguistics electives.

COURSE DESCRIPTIONS

1000 Language A nontechnical exploration of human language for the general citizen. Emphasis on the basics of how language works, the creative aspects of language, and languages of America today.

1500 Basic Traditional Grammar

2000 Introduction to Linguistics An introduction to the study of languages as structural systems. Principles of sound patterns, word formation, meaning, and sentence structure.

2110 Writing Systems of the World An overview of the structural features of human languages and a review of the different ways these are represented in selected ancient and modern systems.

2200 Language in its Social Context Exploration of the relation of language to society. Varieties of language are described.

2800 Special Topics in Linguistics

3430 Semantics Theoretical study of meaning in natural language.

3500 Language and the Public Interest A study of language in public and private use, with concentration on semantic devices as found in the language of political propaganda, advertising, business, and government.

3800 Special Topics in Linguistics

4030/5030 Linguistic Phonetics Introduction to the practical and theoretical aspects of phonetics. Training in recognition and production of speech sounds.

4220 Psycholinguistics Roles of the brain and of perceptual and motor systems in communicating via language. Writing, gestural, and animal communicative systems.

4240/5240 Survey of the History of Linguistics Historical survey of views on language, and examination of linguistic thought in all historical periods from Panini to de Saussure.

4410/5410 Phonology The study of sound systems of language and introduction to the principles of organization of sound systems and major kinds of phonological structures found worldwide.

4420/5420 Morphology and Syntax Introduction to the principles of word formation and sentence structure.

4560 Language Development The acquisition of language by young children; the development in later years and into adulthood.

4570/5570 Introduction to Diachronic Linguistics A course designed to familiarize the student with the terminology, methods, and theories dealing with phenomena of language change through time.

4610/5610 English Structure for Teachers of English to Speakers of Other Languages

4620/5620 Methods of Teaching English to Speakers of Other Languages

UNIVERSITY OF CONNECTICUT
LINGUISTICS DEPARTMENT
COLLEGE OF LIBERAL ARTS AND SCIENCES

MAJOR REQUIREMENTS

The Department of Linguistics and the Department of Philosophy offer a joint concentration in Linguistics and Philosophy. A minimum of four courses (twelve credits) at the 200 level from each department is required. Specifically required courses are Philosophy 241, Language: Meaning and Truth and Linguistics 206, Syntax and Semantics.

Other students interested in Linguistics should consider forming their major group from courses in a related field and linguistics, as described under "Bachelor's Degree Requirements," item II [Total of 36 credits required].

COURSE DESCRIPTIONS

101 Language and Mind The special properties of human language and of the human mind that make verbal communication possible. Basic topics in the psychology of language, illustrated by films and demonstration experiments.

102 Language and Environment The birth, spread and death of languages.

202 Principles of Linguistics A survey of theory, methods and findings of linguistic research: the relation between sound and meaning in human languages; social variation in language; language change over time; universals of language; the mental representation of linguistic knowledge.

205 Phonology Prerequisite: 202 or 204. The analysis of sound patterns in languages within a generative framework: distinctive features, segmental and prosodic analysis, word formation, the theory of markedness.

206 Syntax and Semantics Prerequisite: 202 or 204. The analysis of form and meaning in natural languages in a Chomskyan framework: surface structures, deep structures.

208 The Linguistic Basis of Reading and Writing The relationship between writing systems and linguistic structures; the psycholinguistic basis of reading.

211 Linguistic Field Methods Prerequisite: 205 or 206.

215 Experimental Linguistics Prerequisite: 101 or 202 and Psychology 132.

244 Language and Culture Anthropological contributions to the study of language, culture and their relationship. Topics include the Sapir-Whorf hypothesis and the application of linguistic methods and theory to the study of folk classification systems.

UNIVERSITY OF FLORIDA AT GAINESVILLE
LINGUISTICS PROGRAM
COLLEGE OF LIBERAL ARTS AND SCIENCES

Linguistics is an interdisciplinary program which offers a major leading to the BA degree. This major is designed to provide a background in the study of language, linguistic structures and linguistic theory.

MAJOR REQUIREMENTS

The student who gains admission to the Program must earn a grade of C or higher in a minimum of 35 semester hours distributed as follows:

1. Program core courses (15 credits)
   - a. LIN 3010 Introduction to Linguistics
   - b. LIN 3221 The Sounds of Human Language
   - c. LIN 3340 Traditional Grammars
   - d. LIN 3611 Languages and Dialects
   - e. LIN 4005 Linguistic Ideas in Linguistic Theory
2. Program elective courses (20 credits)

Students must take at least 20 credits of linguistically-oriented courses selected from the 4000 level courses listed below, and from 3000 and 4000 linguistically-oriented courses listed in this catalog. No 2000 level courses count towards Program Electives. All Program Elective Courses must be approved by the Undergraduate Adviser.

COURSES

2000 Language and People The nature of human language, its origins, and its relationship to thinking and behavior.

2001 Language: Social Science Perspective How Language structures the interaction of the individual with the environment.

3010 Introduction to Linguistics

3221 The Sounds of Human Language Study of sounds, their patterning, and function in languages of the world.

3340 Traditional Grammars

3611 Language and Dialects Introduction to the defining characteristics and varieties of human natural languages and dialects.

3700 Language and Brain How sentences are produced, understood, and remembered by the human user.

4005 Leading Ideas in Linguistic Theory Analysis of linguistic data in syntax, morphology, and phonology.

4203 Forensic Issues in Linguistics Phonemics, syllabic and prosodic phenomena, neutralization, distinctive features, morphophonemic alternation, phonological systems and processes.

4220 Introduction to Phonology

4322 Introduction to Syntax

4335 Introduction to Morphology

4376 Structure of a Specific Language

4403 Contrastive and Error Analysis English phonology, syntax, semantics, and orthography compared to those of other languages, with implications of second language acquisition.

4603 Survey of Sociolinguistics Major approaches to language in context: ethnolinguistic, sociological, linguistic.

4721 Second Language Acquisition

UNIVERSITY OF GEORGIA
DEPT. OF ANTHROPOLOGY AND LINGUISTICS
COLLEGE OF ARTS AND SCIENCES

THE MAJOR

The requirements for the major are (1) any three core courses: LIN 415T, 430, 469, 481, 482; (2) one course in sociolinguistics or psycholinguistics: LIN 402T, 449, 471, 486; (3) one course in the structure of a specific language or languages: LIN 383, 404T, 421, 461, 462, 485, 490; (4) any three additional LIN courses. The introductory course in Linguistics (LIN 210 or 320H) does not count towards the major but is a prerequisite for those wishing to pursue such a major. Among the 40 hours required for the major, 20 hours must be in residence and in courses numbered 300 or higher.

THE MINOR

In an effort to complete an abridged, but coherent program in Linguistics, a student may minor in linguistics by satisfying the following sequence: (1) LIN 210 or 320H; (2) any two core courses: LIN 415T, 430, 469, 481, 482; (3) two other LIN courses.

COURSE DESCRIPTIONS

210 The Study of Language An introduction to the scientific study of language, emphasizing such topics as the organization of grammar, language in space and time.

320H Introduction to Linguistics A survey of the field of linguistics and of linguistic theory.

383 Languages of the World

400T History of the English Language

402T Dialectology The phenomena of regional and social linguistic variation among speakers of the same language are investigated.

404T The Structure of Black English

411T English Grammar

413T English Grammar: Phonology and Morphology

415T Transformational Syntax Study of techniques and formalisms for analyzing syntactic phenomena of human languages within the framework of transformational grammar.

421 Introduction to Indo-European Studies The history and development of the Indo-European language family: the various early Indo-European dialects, their grammatical structures, and the evolution of those structures from the proto-language.

430 Generative Phonology Study of techniques and formalisms for analyzing sound systems of languages by means of distinctive features. Prerequisite: LIN 481.

438 Contrastive Grammar: German/English

442 Set Theory and Logic

443 Symbolic Logic

446 Linguistic Structure of German

449 Psychology of Language Theories and relevant data are studied from the perspective of language as a communicative device.

450 Language Development

460 History of the German Language

461 Structure of Sanskrit I

462 Structure of Sanskrit II Prerequisite: 461.

469 Historical Linguistics Traditional methods of historical linguistics are reviewed, with examples from several different language families.

471 Languages in Contact The study of the influence of languages on other languages spoken in the same or neighboring areas. Prerequisite: LIN 480 or 210 or 320H.

480 Introduction to Linguistics

481 Phonetics and Phonology

482 Linguistics: Morphology

485 American Indian Languages

486 Language in Culture and Society

490 Topics in Indo-European Linguistics

500 Language Acquisition and Development

507 English Language Studies for Teachers

570F History of the French Language

570P History of the Portuguese Language

570S History of the Spanish Language

UNIVERSITY OF HAWAII AT HILO
LINGUISTICS PROGRAM
ARTS AND SCIENCES

MAJOR REQUIREMENTS

1. 30 semester hours of linguistic courses, including: LIN 121 or 203; LIN 211, 311 and 321. 18 additional semester hours in linguistics, of which at least 12 semester hours must be at the 300-level or above.

2. Two years of college-level foreign language study or the equivalent.

COURSE DESCRIPTIONS

121 Introduction to Language Linguistically oriented approaches to human behavior, including ethnolinguistics, sociolinguistics, and psycholinguistics.

203 Introduction to Linguistics Introduction to general linguistics; survey of phonological, morphological, syntactic, and semantic analysis, and historical and comparative linguistics.

211 Phonetics An introduction to the International Phonetic Alphabet as it applies principally to American English.

270 English in Hawaii

311 Phonology Binary value, distinctive feature analysis of the speech sounds of the natural languages of the world. Consideration given to language change, dialect, stylistic variation, and phonological universals. Prerequisite: 121 or 203.

321 Morphology and Syntax Introduction to grammatical analysis and theory; practical experience in solving problems in morphology and syntax, using data drawn from a wide variety of languages. Prerequisite: 203.

331 Ethnolinguistics Interrelations of language and culture. The relevance of linguistic analysis and model construction to anthropological, folkloristic, semantic, and cognitive data. Prerequisite: 121 or 203.

332 Sociolinguistics Co-variation of linguistic and social variables; the speech community; language and social class; pidgins and creoles. Prerequisite: 121 or 203.

333 Psycholinguistics Theory and method in the investigation of the relationship between language and cognition, first- and second-language acquisition, speech pathologies. Prerequisite: PSY 112.

344 Children and Language Strategies of language acquisition used by children; emphasis in investigative skills and methods. Prerequisite: 121 or 203.

351 Methodology of Foreign Language Teaching Prerequisite: 203.

371 Historical Comparative Linguistics Fundamental concepts in comparative and historical methods in linguistics; principles of language change and the reconstruction of earlier stages of languages. Prerequisite: 121 or 203.

410 Language and Meaning Modern and historical theories of meaning, reference, and the relations between language and knowledge of the world. Prerequisite: previous work in PHIL and LIN.

412 Varieties of American English Prerequisite: 203 or 211 or 311 or 332.

420 History of the English Language Prerequisite: 203.

425 Modern English Grammar Prerequisite: 203.

446 Linguistic Field Methods Prerequisite: 121.

451-452 Structure of Japanese Prerequisite: 203 and JPN 202.

453 Hawaiian Phonetics and Phonology Prerequisite: HAW 202.

454 Hawaiian Morphology and Syntax Prerequisite: HAW 202.

455 Hawaiian: A Polynesian Language The similarities and differences among Polynesian languages, and the reconstruction of their common ancestor language. Prerequisite: HAW 301 and 453 and LIN 203.

494 Special Topics in Linguistics Prerequisite: junior or senior standing.

UNIVERSITY OF ILLINOIS AT CHICAGO
LINGUISTICS DEPARTMENT
COLLEGE OF LIBERAL ARTS AND SCIENCES

Linguistics may be broadly defined as the systematic study of language encompassing both theoretical and applied approaches. Theoretical linguistics has as its principal aim the study of the structural properties of individual languages, language families, and language in general. Subfields of theoretical linguistics include historical, comparative, and contrastive linguistics, all of which focus on the development of and the relationships among languages.

Undergraduate courses are designed to help the student understand how language is organized and used to code and communicate knowledge, to effect action, and to establish, maintain, and reaffirm social relationships. Students majoring in any field, but especially languages, literature, or the social sciences, can benefit from the study of linguistics.

MINOR

20 hours. Students from other disciplines who want to minor in linguistics must complete the following: LIN 305, 310, 320, 330, 340.

COURSE DESCRIPTIONS

150 Introduction to Language Study Topics include meaning, form, and sound in language, how a child learns language, how languages differ, and language in its social context.

160 Language and Society Introduction to the study of language in its social context. Linguistic variation in the community.

170 Languages of the World The classification of the world's languages into families; their relationships, similarities, and differences.

201 Terminology of the Health Sciences The structure and formation of technical terms based on roots and terms borrowed from Greek and Latin.

250 Human Language: Differing Views A survey of theories of language from ancient to modern times, focusing on contemporary models.

252 Introduction to Applied Linguistics The cross-connections between linguistic science and other disciplines.

254 Linguistics and Literature The usefulness of some concepts and techniques of linguistics to the study of literature.

256 Language and Sex Relationship between language and sex from the point of view of phonology, vocabulary, syntax, and dialect; sex roles as reflected in the language of politics, religion, literature, education, and the media. Prerequisite: one 100-level LIN course.

305 Introduction to Linguistics Theories and methods of the phonological, morphological, and syntactic analysis of language. Prerequisite: junior standing.

307 History of Linguistic Science Development of linguistic thought from its historical beginnings to the present. Prerequisite: 305 or junior standing.

310 Phonology Introduction to the theories and methods of phonological analysis. Prerequisite: 305 or junior standing.

312 Linguistic Phonetics The relationship of articulatory, acoustic, and auditory phonetics to the study of language. Prerequisite: 310 or junior standing.

320 Morphology Introduction to the theories and methods of morphological analysis. Prerequisite: 310 or junior standing.

330 Syntax Introduction to the theories and methods of syntactic analysis. Prerequisite: 305 or junior standing.

340 Comparative and Historical Linguistics The comparative and diachronic study of languages. Prerequisite: 305.

342 Contrastive Language Studies Theory and practice of contrastive descriptions of languages. Prerequisite: 305.

353 Dialectology Geographical and social variations in languages. Prerequisite: 310 or junior standing.

356 Language and Gender Examination of current sociolinguistic research and theories on the function of sex categories in linguistic systems and male-female differences in patterns of linguistic usage.

359 Topics in Linguistics

374 The Psychology of Language Introductory survey of methods, theory, and research; the history and present status of psychology's interest in language behavior.

380 Sociolinguistics Variations in language that correlate with variations in societies and smaller social groups. Prerequisite: 305.

383 Teaching English as a Second Language I Prerequisite: 305.

UNIVERSITY OF ILLINOIS AT URBANA
LINGUISTICS DEPARTMENT
COLLEGE OF LIBERAL ARTS AND SCIENCES

Linguistics courses: 30 hours.

Cognate courses: 14 hours (chosen in consultation with an adviser)

Undergraduate instruction in linguistics has two purposes: it is intended to prepare students for various careers in which the scientific study of language is of significance; it is, furthermore, the basis for a continued professional training toward the M.A. and Ph.D. degrees in this field.

MAJOR REQUIREMENTS

The hours in linguistics must include 200, 225, 300, 301, and 302; the balance should be selected from among other 200- and 300-level courses. Students are expected to take two additional courses in each of two special areas of linguistics, such as psycholinguistics, applied linguistics, sociolinguistics, mathematical and computational linguistics, non-Western language structure and area linguistics (African, Classics, East Asian, Germanic, Indo-European, Romance, Semitic, Slavic, South Asian). Students should take all cognate hours in linguistically relevant courses in any one or more of the following units: anthropology, classics, computer science, English, English as a second language, French, Germanic, philosophy, psychology, Slavic, Spanish, Italian, and Portuguese, speech and hearing science, and speech communication.

In addition to the basic requirement of 44 hours described above, students are encouraged to undertake two years of study of a second language in addition to the language used to satisfy the college foreign language requirement. This second language may be either a Western or non-Western language. Each student's program, including the selection of the special areas and second language credit is to worked out in consultation with the departmental adviser.

COURSE DESCRIPTIONS

200 Introduction to Language Science An introductory overview of language and linguistics for undergraduates, oriented toward language as a reflection of the structure of the human mind and human culture. It introduces students to the various levels of linguistics structure (phonetics, phonology, morphology, syntax and semantics) as they are treated in linguistic theory, to matters of language use (speech acts, pragmatics, etc.) and to questions of language as a social phenomenon (dialects, language change taboos, language and sex roles, language and deception, etc.)

225 Elements of Psycholinguistics An introduction to the phenomena of language by considering the psychological processes in language production, use, and acquisition. Among the topics to be covered are psychological and linguistic models of language; animal

communication, chimp talk and the origin of language; how meaning is organized and represented in the mind; stroke victims and other language deficits; and first and second language acquisition.

300 Introduction to Linguistic Structure The purpose of this course is to introduce the three central areas of linguistics: phonology, historical linguistics, and syntax. The course is intended for undergraduate and graduate students who have had some training in linguistics and/or language. In contrast to 200 and 400, which are broad surveys of language science, 300 is an in-depth examination of how modern linguists approach what are considered to be the central problems of the scientific study of the language. The course emphasizes the application of linguistic theory to the description of data from a variety of languages, e.g., Indo-European, African, and American Indian.

301 Introduction to General Phonetics Topics of articulatory phonetics include speech organs, consonant, vowel, tone, syllable, accent, and intonation. During the second half of the term, acoustic phonetics and speech perception are covered. Topics include vibration, complex wave, frequency, pitch, resonance, format, hearing, categorical perception, and cerebral lateralization. Native speakers of various languages are invited to produce and transcribe sounds and work with instruments such as Visi-Pitch and Digital Sona-graph.

302 Introduction to Language History An introduction for beginners to the nature of language change and language relationship. Types of change (sound change, semantic change, borrowing, etc.), their motivation, and their effects with special emphasis on etymology and the social and cultural factors involved with language change. The course also covers the relationship between different languages and dialects and the establishment of language families. This will be followed by a brief survey of the major language families of the world, including Indo-European.

304 Tutorials in Nonwestern Languages Advanced tutoring in non-western languages.

325 Introduction to Psycholinguistics A consideration of the major theoretical issues in psycholinguistics,especially those related to language acquisition and language performance. Subsidiary topics within these areas include the role of environmental and generic factors in acquisition, the possibility of language in other species, sentence comprehension and production, theories of first and second language acquisition, and the methodology employed in the empirical investigation of these topics.

330 Introduction to Far Eastern Linguistics Section A: Japanese. The course deals with major syntactic and discoursal problems of the Japanese language; more specifically, at least the following unsolved, interesting problems will be under focus: wa and ga, nominalizer (= complementizer) choice, relative clauses, tense

and as[ect, reflexivizations, pronominalizations, case marking, passive, potentials, subordination, deletions, repetitions, discoursal coherence. Knowledge of Japanese language (at least intermediate Japanese) is required.

340 History of Linguistics The development of linguistics in Europe (particularly in Great Britain, France, Italy, and Germany) and America, with excursus on India and on the Semitic world. The main line of development is pursued from Greece and Rome through the medieval world and through the early New Age to the growth of linguistics as a richly ramified science in the 19th and 20th century.

350 Introduction to Sociolinguistics This is a motivational course intended to introduce students to socially-oriented linguistic theories--both in the USA and Europe, and to Applied Linguistics. The theoretical, applied, and methodological issues are critically discussed with special reference to language varieties, language stratification, language standardization, nativization, language and education, and language change. The aim is to illustrate the relationship of linguistics form to functions of language in varied social contexts across languages and cultures. The relevance of theoretical and applied sociolinguistics to, among others, bilingualism, language planning, institutionalized non-native varieties of English, and role-related varieties is discussed with Western and non-Western case studies.

The following languages are taught by the Department of Linguistics.

AFLNG 202 ELEMENTARY HAUSA

AFLNG 304 INTERMEDIATE HAUSA

AFLNG 212 ELEMENTARY LINGALA

AFLNG 314 INTERMEDIATE LINGALA

AFLNG 232 ELEMENTARY SWAHILI

AFLNG 334 INTERMEDIATE SWAHILI

AFLNG 242 ELEMENTARY WOLOF

AFLNG 344 INTERMEDIATE WOLOF

ARABIC 202 ELEMENTARY STANDARD ARABIC

ARABIC 304 INTERMEDIATE STANDARD ARABIC

HEBREW 202 ELEMENTARY MODERN HEBREW

HEBREW 304 INTERMEDIATE MODERN HEBREW

HEBREW 306 ADVANCED MODERN HEBREW

UNIVERSITY OF IOWA
LINGUISTICS DEPARTMENT
COLLEGE OF LIBERAL ARTS

Linguistics is the science which studies the organizing principles underlying human language. There are many indicators that such principles exist in language. Children normally learn to use their native language before they enter school, and without much direct instruction. People can speak and understand sentences they have never heard before. Linguists do not attempt to learn many languages. Rather, they consider the languages of the world as data to be analyzed by common principles.

Linguistics is a science with many laboratories. One linguist's laboratory may consist of a library and pencil and paper. Another may work with acoustical equipment. Others need computers. Some go into seldom-visited places to study, describe, and analyze little-known languages which may be in danger of extinction. Some go into their own communities to study the relationship between language variation and socio-economic structure, or race, or sex. Still others, interested in language change, spend time studying ancient languages.

Linguistics is not limited to scientific research for its own sake. Linguists may teach English as a foreign language. They may help design school programs which are relevant for Chicanos, Blacks and Native Americans. They may help intelligence-test and achievement-test makers avoid discrimination against those who are not middle-class white Americans, or work with speech clinicians to retrain people with linguistic disabilities.

The Bachelor of Arts degree in linguistics prepares the student to do basic language analysis in syntax-semantics (sentence patterns and their relation to meanings) and phonology (sound patterns). Elective courses in a variety of subspecialties enable students to tailor the program to their own interests.

MAJOR REQUIREMENTS

The major in linguistics requires 24 semester hours of work in the department. It includes a general introduction and courses in syntax, phonetics, phonology, and language history, as well as electives to be worked out in consultation with the undergraduate adviser.

COURSE DESCRIPTIONS

103:11 Language and Society Correlations between social and linguistic behavior; methods for discovering and describing socially significant language behavior; educational and political implications of findings.

103:13 Language and Formal Reasoning Introductory natural language semantics, with emphasis on formal study of linguistic meaning through logical analysis; meaning in linguistics, logical analysis of predication and quantification, argumentation and persuasion, lexical analysis, and discourse meaning.

103:99 Special Project

103:100 Introduction to Linguistics

103:105 Language, Society, and Education Socially conditioned attitudes to language use; development of prescriptivism, linguistic indicators of socioeconomic status, concepts of a "standard" language and dialects of a language.

103.106 Teaching English as a Foreign Language Domains of contrastive analysis; teaching foreign language skills; survey of ESL texts; adapting and planning lessons; testing. Prerequisite: 103:100, 103:110, 103:141.

103:107 Practicum in Teaching English as a Foreign Language

103:110 Articulatory and Acoustic Phonetics

103.111 Syntactic Analysis Introduction to simple generative models dealing with wide range of syntactic problems in natural languages.

103:112 Phonological Theory and Analysis Basic concepts of phonological theory; solution of problems in phonological analysis; making use of data from a variety of languages. Prerequisite: 103:110. framework of generative theory. Prerequisite: 103:150 and 103:110.

103:113 Linguistic Field Methods Gathering and collation of language data in field; theory and practical problems; extensive practice in eliciting data from an informant. Prerequisite: 103:110, 103:111, and 103:112.

103:119 Topics in Portuguese Linguistics Portuguese phonology, syntax, sociolinguistics, first and second language acquisition, Portuguese-English bilingualism and the relationship of language and culture with practical application to language pedagogy, translation, international studies, and anthropology.

103:120 Historical and Comparative Linguistics Prerequisite: 103:112.

103.121 Syntactic Theory Detailed examination of the nature of linguistic argumentation; critical and creative research. Prerequisite: 103:111.

103.122 Phonological Theory Basic issues in generative phonological theory. Prerequisite: 103:112.

103:125 Introduction to Bilingualism

103:131 History of the English Language Development of phonological and grammatical structure of English form Old to Modern English; dialectal differentiation in English. Prerequisite: 103:100.

103.132 Elementary Old English

103:139 History of the Chinese Language

103:141 The Structure of English Prerequisites or corequisite: 103:110 and 103:150.

103:142 Modern English Grammar

103:143 German Phonology

103:144 Introduction to Chinese Linguistics No knowledge of Chinese required.

103:151 Formalisms Basic logic for the analysis or argumentation in linguistics; basic mathematics and logic for the analysis of natural languages.

103:158 Spanish Phonology II Prerequisite: 35:157.

103:163 Philosophy of Language

103:170 Language and Culture Prerequisite: 113:3 and either 113:171 or 103:100.

103:171 Anthropological Linguistics Structure of spoken languages, emphasizing the techniques for collecting and analyzing linguistic data; the historical and geographical relationships among unwritten languages.

103:172 Psychology of Language I Presentations of theoretical empirical investigations of linguistic behavior; behaviorist and investigations of linguistic behavior; behaviorist and rationalist models within context of formal linguistic structure and models of speech perception and production.

103:173 Applied Linguistics Psycholinguistic theory and linguistically oriented methods of foreign language teaching, in connection with child language, second-language learning, and teaching a prestige dialect to speakers of "substandard" dialects.

103:176 Psychology of Language II Alternative models of language acquisition. Prerequisite: 103:172 or 103:100.

103:177 Neural Processes of Speech and Language Neuroanatomy and neurophysiology related to speech and language processes; theories and research concerning brain function, neuromuscular processes, and neural maturation.

103:178 Error Analysis Prerequisite: 103:111, 103:112, 103:141, and 103:173.

UNIVERSITY OF KANSAS
LINGUISTICS DEPARTMENT
COLLEGE OF LIBERAL ARTS AND SCIENCES

MAJOR REQUIREMENTS

1. Foreign Language Requirements:

    a. Three foreign languages are required, one of which must be a non-Indo-European language.

    b. The student must satisfy the College Foreign Language Proficiency requirement in one of the three languages.

    c. The student must attain a reading knowledge of a second foreign language, which normally requires a minimum of ten hours of course work. The requirement may also be met by examination.

    d. The student must take at least the beginning course of a third foreign language.

2. Course Work:

    a. Linguistics 306, Introductory Linguistics. Linguistics 700, Introduction to Linguistic Science may be substituted for Linguistics 306. (The Honors course, Linguistics 307 may also be used to fulfill this requirement.)

    b. Linguistics 308, Linguistic Analysis.

    c. Three credit hours of Phonetics. Linguistics 701, Introduction to Phonetics and Linguistics 702, General Phonetics or Linguistics 703, Transcription and Ear Training or Linguistics 706, Contrastive Phonetics.

    d. A course in Phonology. Linguistics 712, Phonology I.

    e. A course in Grammatical Theory. Linguistics 722, Grammatical Analysis or Linguistics 725, Generative Grammar.

    f. A course in Comparative/Historical Linguistics. Linguistics 750, Comparative and Historical Linguistics Linguistics 747, American Indian Languages North of Mexico or Linguistics 753, Indo-European Language Family.

    g. Six additional credit hours of Linguistics courses.

COURSE DESCRIPTIONS

104 Nature of Language A study of the characteristics of language and the language diversity.

306 Introductory Linguistics Introduction to the fundamentals of linguistics, with emphasis on the description of the sound systems and grammatical structures of language.

308 Linguistic Analysis Practice in applying the techniques of phonological, grammatical and syntactic analysis learned in introductory linguistics to data taken from a variety of languages of different structural types.

320 Language in Culture and Society This course explores the role of language in everyday life of peoples in various parts of the world and the nature of the relationship between language and culture.

425 Child Language: An Introduction to Acquisition of Communicative Competence An introductory course in the acquisition of child language.

430 Linguistics in Anthropology The study of language as a symbolic system.

460 Languages of the World A survey of the language families of the world.

492 Topics in Linguistics

700 Introduction to Linguistic Science An introduction to the theory and techniques of linguistic science for majors and others intending to do advanced work in linguistics.

701 Introduction to Phonetics An introduction to the mechanisms used in producing speech sounds in languages of the world and to the acoustic properties of speech. Prerequisite: an introductory linguistics course or consent of the instructor.

702 General Phonetics A study of speech sounds in languages of the world with special emphasis on experimental evidence related to their production and acoustic properties. Prerequisite: 701.

703 Phonetic Transcription and Ear Training Phonetic discrimination and transcription. Prerequisite: 701.

706 Contrastive Phonetics A comparison of English sounds with the sounds of other major languages of the world. Prerequisite: 701.

708 Linguistic Analysis Practice in applying the techniques of phonological, grammatical and syntactic analysis learned in introductory linguistics to data taken from a variety of languages of different structural types. Prerequisite: An

introductory course in Linguistics.

712 Phonology I A study of sound structure and function within languages. Prerequisite: A course in phonetics.

714 Phonology II Distinctive feature systems; the role of naturalness, generality and economy in evaluation procedures. Prerequisite: Phonology I.

715 Applied Linguistics: Methods of Teaching English and Other Languages as a Second Language Methods of second language teaching, particularly from the viewpoint of linguistics theory. Prerequisite: An introductory course in linguistics.

717 Practicum in the Teaching of English as a Second Language Prerequisite: 715.

718 Practicum Tutorial in ESL Supervised assistant teaching in ESL programs in the community. Reports, lesson plans, discussion of goals and methods. Prerequisite: 715.

721 Language and Literature The use of linguistic models in the analysis of literature in various languages. Prerequisite: A course in linguistics.

722 Grammatical Analysis Current theories of grammatical analysis other than generative grammar. Prerequisite: an introductory course in linguistics.

725 Generative Grammar Theory and practice in generative and transformational grammar. Prerequisite: An introductory course in linguistics.

726 Advanced Generative Grammar Alternative theories to the standard theory with emphasis on the generative semantic transformational approach. Prerequisite: 725.

728 Discourse Analysis The use of linguistic approaches for the study of sustained discourse. Prerequisite: An introductory course in linguistics.

730 Linguistics in Anthropology The study of language as it concerns anthropology.

731 Semantics I A study of meaning in natural language usage. Prerequisite: 722 or 725.

732 Formal Semantics I Fundamentals of truth-conditional model-theoretic semantics. Prerequisite: Philosophy 320, CS 520 or Math 722.

733 Mathematical Linguistics A study of abstract systems of grammar and their corresponding languages. Mathematical investigation and characterization of various transformational and nontransformational grammars. Automata theory. Prerequisite:

731.

747 American Indian Languages North of Mexico Prerequisite: An introductory course in linguistics.

49 Languages of New Guinea Prerequisite: An introductory course in linguistics.

750 Comparative and Historical Linguistics An introduction to the history of language and language families. Prerequisite: 6 hours of linguistics, including phonetics.

753 The Indo-European Language Family Prerequisite: 700 and a reading knowledge of French or German.

755 Introduction to Sanskrit

756 Intermediate Sanskrit Prerequisite: 755.

UNIVERSITY OF LOUISVILLE
LINGUISTICS PROGRAM
COLLEGE OF ARTS AND SCIENCES

The College of Arts and Sciences offers an interdisciplinary program in linguistics, leading to the Bachelor of Arts degree.

Linguistics courses are primarily interdisciplinary in nature. However, students may use them to meet divisional and out-of-divisional requirements.

MAJOR REQUIREMENTS

1. The following courses constitute the core of the major: LIN 301, 302, 311, 501, 503, 524.

2. Electives from one of the five groups listed below:
   Restricted Electives:
   PSYCH 311, 322, 331
   PHIL 303 or 304, 323, 511, 528, 572 or 576
   EDUC 553, 560, 564
   Historical/Comparative Linguistics:
   ENG 521 to 525, 561
   FRE 511, 512, 521, 522
   GER 511, 521
   SPA 522

3. Modern Languages: 9 hours from language or culture track, above the 200-level.

MINOR

Language Science: 301, 302, 501, 502.

Restricted electives from catalog list.

COURSE DESCRIPTIONS

301 Language and Experience An introduction to the study of language, focusing on the way language influences human experience and the organization of human behavior.

302 Introduction to Linguistics An examination of the nature, structure, and use of language. Prerequisite: 301.

311 Philosophy of Language Philosophical problems concerning language, such as meaning, use, reference, private language, and their interrelation. Prerequisite: 301.

332 Language in Culture An introduction to the functions of language in human interaction, focusing on various aspects of the structure of communication and language use in various societies.

334 Language Acquisition Examination of the acquisition and development of phonology, syntax, and semantics by children learning first language.

491 Special Topics Prerequisite: 301 or 302.

501 Phonetics An introduction to phonetic theory and classifications systems such as the International Phonetic Alphabet. Prerequisite: 301 or 302.

502 Foundations of Language A survey of contemporary theories of language, from structuralism to transformational grammar. Prerequisite: senior standing.

503 Patterns of Language Analysis and description of the sounds, words, and grammar of diverse linguistic structures. Prerequisite: 301 or 302.

524 Psycholinguistics Psychological aspects of language and their significance for analysis and understanding of cognitive and social processes. Prerequisite: 301 or 302 or PSY 322.

534 Language and Social Control An examination of the ways in which language is used as an instrument of social control, with examples drawn from a wide variety of cultures. Prerequisite: senior standing.

UNIVERSITY OF MARYLAND
LINGUISTICS PROGRAM
ARTS AND HUMANITIES

The major program in Linguistics is designed for students who are primarily interested in human language per se, or in describing particular languages in a systematic and psychologically plausible way, or in using language as a tool to reveal some aspect of human mental capacities. Such a major provides useful preparation for professional programs in foreign languages, language teaching, communication, psychology, speech pathology, artificial intelligence (and thus computer work).

MAJOR REQUIREMENTS

The major is interdisciplinary and students obtain a BA in Linguistics by following one of two tracks: 'Grammars and Cognition or 'Grammatical Theory and a Language'. In each case, students take a common core of LING courses: LING 200, 240, 311-312, 321-322. Beyond this core, students specialize: a further nine hours are required in LING and eighteen hours in either selected courses in HESP, PHIL, and PSYC, or a particular language. The specializations in detail:

GRAMMARS AND COGNITION
LING 440 Grammars and Cognition
Two LING 300/400 electives
PHIL 466 Philosophy of Mind
HESP 400 Speech and Language Development in Children
or 498 Seminar in Psycholinguistics
PSYC 440 Introduction to Cognitive Psychology
or 442 Psychology of Language
Three 300/400 electives in HESP, PHIL, PSYC or CMSC

GRAMMATICAL THEORY AND A LANGUAGE
| LING 410 Grammars and Meaning
| LING 411 Comparative Syntax
or
| LING 420 Word Formation
| LING 421 Advanced Phonology
LING 300/400 elective
Five required courses in the language of specialization
A course in the history or structure of the language of specialization

When possible, the language of specialization should be the same as the one used to satisfy the Divisional Foreign Language Requirement. The specialization normally includes those courses which make up the designated requirements for a major in the chosen language. Languages presently available for such specialization are Chinese, Dutch, French, German, Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian and Spanish, depending on the availability of suitable courses. Special provision may be made for students who are native speakers of a language other than English and with to conduct analytical work on the grammar of that language. A student may also study grammatical theory and English; the eighteen hour concentration in English consists of courses in the history and structure of English to be selected in consultation with the student's linguistics adviser.

Some students may wish to combine a concentration in Linguistics with another major, then petition the Division for a double major. This entails fulfilling the major requirements of both disciplines, including 27 appropriate credits in Linguistics.

COURSE DESCRIPTIONS

100 Study of Languages An introduction to foreign language study at the university level, designed partly for students who have not studied a foreign language.

200 Introductory Linguistics

240 Language and Mind The study of language as a psychological phenomenon. Ways of representing what people know (subconsciously) when they have mastered their native language, how that knowledge is attained naturally by children, how it is used in speaking and listening.

300 Concepts of Grammar Introduction to the basic units of language description.

311 Syntax I Prerequisite: 240. Introduction to basic concepts, analytical techniques of generative syntax, relating them to empirical limits imposed by viewing grammars as representations of a component of human mind.

312 Syntax II Prerequisite: 311. Consideration of why current theories, as discussed in 311 were developed, how they differ from earlier theories, how we might try to refine and improve them further.

321 Phonology I Prerequisite: 240. Introduction to properties of sound systems of human languages, basic concepts and analytical techniques of generative phonology, relating them to empirical limits imposed by viewing grammars as representations of human mind.

322 Phonology II Prerequisite: 321. Further consideration of current theories of phonology.

330 Historical Linguistics A traditional presentation of language change.

350 Philosophy of Language Prerequisite: PHIL 170 or 173 or 371, or LING 311, or consent of instructor.

410 Grammars and Meaning Prerequisite: 312. Introduction to some of the basic notions of semantic theory: reference, quantification, scope relations, compositionality, thematic relations, tense and time, etc.

411 Comparative Syntax Prerequisite: 312. Comparison of data from a variety of languages with respect to some aspect of current versions of syntactic theory in order to investigate how parameters of universal grammar are fixed differently in different languages.

419 Topics in Syntax

420 Word Formation Prerequisite: 322. Definition of shape and meaning of possible words, both across languages and within particular languages.

421 Advanced Phonology Prerequisite: 322. Topics in current phonological theory.

429 Topics in Phonology

430 Language Change Prerequisite: 240. Discussion of the ways in which grammars may change from generation to generation and the light that such changes shed on the theory of grammars.

431 Indo-European Studies Prerequisite: 330. Presentation of the reconstruction of the Indo-European parent language according to the theories of the Neogrammarians and their followers.

439 Topics in Diachronic Linguistics

440 Grammars and Cognition Prerequisite: 240. Relationship between the structure, development and functioning of other mental systems; e.g., those involved in vision, perception, reasoning.

445 Computer Models of Language Prerequisite: 240. Consideration of the ways in which a person's grammar (i.e., one part of one's mental make-up) can be put to use.

451 Grammars and Variation Prerequisite: 312. Relationship between the fact that people develop grammars and the fact that they can typically use their language in a variety of styles.

453 Mathematical Approaches to Language Prerequisite: 312 or appropriate background in mathematics or computer science. Introduction to those aspects of mathematics which have featured in linguistic discussions: recursion theory, Chomsky's hierarchy of grammars, set theory, Boolean algebra, finite state grammars, context-free grammars, etc.

455 Second Language Teaching Prerequisite: 240. Relationship between theories of grammars and techniques used for teaching and learning second languages, and for the teaching and learning of English in schools.

457 Grammars and Discourse Prerequisite: 240. Consideration of the ways in which a person's grammar can be used in communication, sentence production, speech act theory, pragmatics.

UNIVERSITY OF MASSACHUSETTS AT AMHERST
LINGUISTICS DEPARTMENT
FACULTY OF HUMANITIES AND FINE ARTS
COLLEGE OF ARTS AND SCIENCES

The field of linguistics has undergone rapid change and development in the past twenty years, and the University faculty is at the forefront of current research in linguistic theory. Undergraduates have an excellent opportunity to find out what linguistics is, how linguistics has advanced our understanding of the nature of human language and how the results of linguistic research may relate to such fields as psychology, philosophy, English, foreign languages, education, communication studies, speech therapy and computer science. Linguistics is nearly unique in relating to all three of the broad areas of humanities, science and social science. Linguists do not necessarily have to know a large number of languages, but a background in foreign languages can be an asset, since concentrated investigation of one or a few related languages is often an area of inquiry. Also a grounding in mathematics can be very helpful for the scientific side of linguistic theory.

The Department of Linguistics offers a minor and seven joint majors in which the study of linguistics forms a significant part of the curriculum. These are a combination of Linguistics with Anthropology, Chinese, German, Japanese, Philosophy, Psychology and Russian. The basic requirements are the series of five or six central courses from the other disciplines chosen to emphasize the relation to linguistic concerns.

INTERDISCIPLINARY MAJORS IN LINGUISTICS

The Department of Linguistics offers seven majors in which the study of linguistics forms a significant part of the curricular requirements.

Linguistics and Anthropology Major Requirements

Two years or equivalent of a foreign language, taken before the junior year and a minimum of 38 credits in linguistics and anthropology including the following:

A. One of:

   1. ANTHRO 102 Introduction to Archaeology,

   2. ANTHRO 103 Introduction to Physical Anthropology;

B. Plus

   1. ANTHRO 104 Introduction to Cultural Anthropology,

2. ANTHRO 105 Introduction to Linguistic Anthropology,
3. LING 201/401, 402, 403, 404, 414,
4. ANTHRO 233 Kinship and Social Organization,
5. ANTHRO 363 Linguistic Anthropology: Comparative Dimensions; or Lin 405.

C. One of:

1. ANTHRO 360 Language and Culture in Society

D. One of:

1. ANTHRO 317 Primate Behavior
2. ANTHRO 368 Old World Prehistory
3. ANTHRO 369 North American Archaeology

E. Plus any two other 3-credit courses in linguistics and anthropology numbered 200 or above.

Linguistics and Chinese Major Requirements

Successful completion of four semester courses in Chinese (24 credits): CHINSE 126, 246, 326, 327 or equivalent. Thirty-five credits distributed between linguistics and Asian studies and normally including the following:

A. LING 201/401, 402, 403, 414, 404 or 411.

B. CHINSE 450 Elementary Classical Chinese,

C. CHINSE 475 Syntactic Structures of Chinese,

D. CHINSE 476 History of Chinese Language;

E. CHINSE 451 Intermediate Classical Chinese,

F. CHINSE 470 Introduction to Philology and Bibliography,

G. CHINSE 477 Chinese Dialectology.

Six credits of course work may be selected from among the course list of the Five College Asian Studies catalog or from among relevant linguistics courses such as 409, 410 and 441.

Linguistics and German Major Requirements

Successful completion of four semester courses in German (12 credits): 110, 120, 230, 240 or equivalent. Thirty credits distributed between linguistics and German such that at least 14 credits are earned in courses bearing German numbers over 200, and normally including the following:

A. LING 201/401, 402, 403, 411, 414;

B. GERMAN 310 Advanced German;

C. GERMAN 320 Advanced German;

D. GERMAN 425 Advanced Composition;

E. GERMAN 584 The German Language or German 585 The Structure of German.

Students are encouraged to take graduate courses in the older Germanic languages for undergraduate credit (e.g. GERMAN 701, 702, 703, 704, 705, 810, 811, 812) and may also opt to take courses in German literature or civilization and/or language courses in Danish, Dutch, Swedish. Seniors normally take 495A Senior Seminar.

Linguistics and Japanese Major Requirements

Successful completion of four semester courses in Japanese (24 credits): JAPAN 126, 246, 326, 327 or equivalent. Thirty-five credits distributed between linguistics and Asian studies, and normally including the following:

A. LING 201/401, 402, 403, 414, 404 or 411.

1. JAPAN 375 Introduction to Japanese Linguistics,
2. JAPAN 475 Syntactic Structures of Japanese,
3. JAPAN 476 History of the Japanese Language;

B. Six credits from the following:

1. JAPAN 426 Readings in Modern Japanese I,
2. JAPAN 427 Readings in Modern Japanese II;

C. Six credits from the following:

1. Any other LING courses,

2. JAPAN 135, 143, 144, 250, 330, 331, 436, 437 or 470,

3. CHINSE 110, 120, 275, 450 or 451.

Linguistics and Philosophy Major Requirements

Two years or equivalent of a foreign language to be taken before the junior year, plus 42 semester hours of credit distributed between philosophy and linguistics, and including each of the below or equivalent. At the discretion of the directors of undergraduate studies in each department, other senior-level courses in linguistics and philosophy may be substituted for those listed below. Seniors normally take the cross-listed seminar LING/PHIL 395 Linguistics and Philosophy.

A. LING 201/401, 402, 403, 409, 410, 411;

B. PHIL 310 Intermediate Logic;

C. One of:

    1. PHIL 512 Philosophy and Logic,

    2. PHIL 513 Mathematical Logic;

D. One of:

    1. PHIL 335 Contemporary Analytic Philosophy,

    2. PHIL 340 Philosophical Approaches to Science,

    3. PHIL 582 Philosophy of Science,

    4. PHIL 584 Philosophy of Language;

E. One of:

    1. PHIL 550 Epistemology,

    2. PHIL 551 Metaphysics.

Linguistics and Psychology Major Requirements

The courses listed below, plus an additional 12 to 18 credits in courses numbered 300 and above in linguistics and psychology.

A. LING 201/401, 402, 403, 409, 411;

B. PSYCH 100 Elementary Psychology;

C. PSYCH 240 Psychological Statistics;

D. PSYCH 241 Methods in Psychology;

E. Two of:

   1. PSYCH 330 Physiological Psychology,

   2. PSYCH 315 Cognitive Psychology,

   3. PSYCH 350 Child Behavior and Development;

F. One of:

   1. Ling 412 Language Processing and the Brain,

   2. PSYCH 318 Psychology of Language,

Senior Thesis Requirement: A written thesis must be completed and approved by a thesis committee consisting of at least one faculty member from the Linguistics Department and one from the Psychology Department. Up to six units of thesis credit (498 or 499) may be earned in either Linguistics or Psychology.

Linguistics and Russian Major Requirements

Successful completion of four semester courses in Russian: RUSS 101, 102, 201, 202 or equivalent. Thirty credits distributed between linguistics and Slavic languages, and including at least 18 credits earned in courses bearing Russian catalog numbers. The language courses taken as a prerequisite to the major may be counted toward these 18 credits, which are required for state certification, but not toward the major. Courses in the major normally include the following:

A. LING 201/401, 402, 403, 411, 414;

B. RUSS 301 Advanced Russian I;

C. RUSS 302 Advanced Russian II;

D. RUSS 560 Russian Phonetics;

E. RUSS 561 Structure of Russian;

F. RUSS 563 Contrastive Structures of Russian and English.

MINOR REQUIREMENTS

1. Two of the following must be chosen as 'cores': 201/401, 402, 403;

2. Three of the following must be chosen in addition to the 'cores': 312, 402, 403, 404, 405, 410, 411, 412, 413, 496, Independent Study.

COURSE DESCRIPTIONS

101 People and Their Language A relatively non-technical introduction to the study of human language, its structure and use. Emphasis on discovering some of the wealth of unconscious knowledge that every native speaker of a language has about its sound patterns, word structure, sentence structure and meanings. How language is acquired, how languages change over time.

201 Introduction to Linguistic Theory Introduction to linguistic theory and research methods. The syntax of English. Linguistic theory approaches grammar as an innate property of mind.

401 Introduction to Linguistic Theory Introduction to the theory of language structure; attention to transformational theories of syntax and generative grammar. Concentration on selected topics in syntax and phonology; attention to the wider implications of linguistic theory for the study of human mind and behavior. NOTE: Basically same material as 201 but more challenging.

402 Phonological Theory The character of sound patterning in language; the kinds of sounds that serve as elements of a linguistic pattern; the regularities found in the shape of words; the flow of speech, the rules that govern such patterning. Phonological structure is abstract and systematic, so that the theory of phonology contributes in essential ways to our understanding of the human language capacity. Skill at phonological analysis developed by working out problems of increasing complexity.

403 Introduction to Syntax Major issues in syntactic theory, from a relatively sophisticated viewpoint. Topics from: X-bar theory, form and functioning of transformations, grammatical relations and lexical rules, anaphora and control, problems of free word order, universals of grammar, relation between syntax and semantics. An emphasis on developing analytical and descriptive skill, through frequent written assignments. Prerequisite: 201/401.

404 Field Methods Prerequisite: 201/401.

405 Introduction to Historical Linguistics Survey of the goals, methods, and results of research into the history and prehistory of languages; attention to the theories of the neogrammarians, structuralists, and generativists. Focus on change, reconstruction, and variation; examples from the Indo-European language family. Prerequisite: 201 or 401.

409 Formal Foundations of Linguistic Theory Introduction to some basic mathematical concepts and techniques central to linguistic theory and related disciplines, including set theory, logic and formal systems, modern algebra, automata theory and model theory. No prior mathematics assumed. Not open to math majors. Prerequisite: 201/401/601.

410 Introduction to Semantics Survey of the aspects of linguistic meaning about which it seems possible to make reliable and systematic statements through sessions of traditional linguistic approaches and more recent approaches from transformational generative grammar, logic and ordinary language philosophy. Three main areas covered: word meaning, sentence meaning and utterance meaning: considerable attention to the function of contextual factors used in the understanding of language and to the relationship between form and meaning. Prerequisite: 201/401.

411 Introduction to Psycholinguistics How a child acquires language: aspects of a child's growing mental powers. Stresses the child's use of a systematic linguistic structure to produce creative sentences. The child's acquisition of language (primarily syntactic and semantic) from the one-word stage through complex utterances. Linguistic ability as inborn capacity. Recent discoveries in the area of complex syntax. Prerequisite: 101/201/401.

412 Language Processing and the Brain Introduction to psycholinguistics and neurolinguistics; emphasis on the technique and results of recent theoretical and experimental investigations of language. How people comprehend language; language production, language acquisition, the biological basis of language and the relation of human linguistic capacity to the structure of the human brain. Prerequisite: 101/201/401.

413 Sociolinguistics What the investigation of language tells us about society. Focus on nonstandard dialects. The extent to which variations in linguistic patterns depend on social context, sex, class, class consciousness. Important theoretical currents in sociolinguistics, including those inspired by Labov, Bernstein, Goffman, Sapir, and Whorf.

414 Introductory Phonetics for Linguists The rudiments of articulatory and acoustic phonetics, both practical and theoretical. Main topics: the basic anatomy of the speech organs, the basic speech-sound producing mechanisms and the acoustic correlates of

speech sounds. Corequisite: 402.

UNIVERSITY OF MASSACHUSETTS AT BOSTON
LINGUISTICS PROGRAM

Linguistics explores the structure of language and its role in human affairs. Language can be approached in a variety of ways: as something young children learn, as the product of cultures and social groups, as the medium of literature and as the activity of the mind. Thus linguistics is a combination of the humanities, social sciences and natural sciences. Because of the techniques of analysis which it offers, it is equally valuable for literature and psychology, pre-legal and pre-medical studies, mathematics and anthropology, foreign languages and philosophy.

CONCENTRATION REQUIREMENTS

Students concentrating in linguistics must complete seven courses (21 credit hours):

1. An introductory course: 201 or 203 or Anth 281 (Structure of Human Language) or Anth 285 (Language and Culture).
2. A course on speech sounds: 230.
3. A course on grammar: 210.
4. The linguistics junior-year seminar: 300.
5. A sequence of three advanced courses: Students select three advanced courses in subjects of special interest.
6. Foreign Language: Linguistics students are required to achieve intermediate standing in a second language or in an artificial language (sign language, logic, computer languages).

Many of the courses satisfying Linguistics Program requirements are given by other departments. They deal with a variety of linguistic interests: ethnolinguistics, physiology of language, acoustic phonetics, creole language, composition theory, language history, literary stylistics, sociolinguistics, semiotics, philosophy of language, language development and disorder and comparative linguistics.

COURSE DESCRIPTIONS

201 Introduction to Linguistics An introduction to the modern study of language viewed as a crucial factor in understanding the human mind. The course provides the scientific tools needed to describe language. Recommended for all language-related specialties as well as for general education.

203 Language Across Time How language and language-change have been viewed across time; processes and patterns of linguistic change, linguistic reconstruction in the Indo-European family; the birth of modern linguistic theory.

210 Transformational Syntax This course trains the student in using the principles and methods developed since 1957 by Chomsky and his followers. Prerequisite: 201 or 203 or Anth 281 or 285.

230 Speech Sounds and Theory The way linguists analyze speech sounds: articulatory and acoustic phonetics, phonemes and phonological theory and research methods applied to the sound systems of languages.

260 Bilingualism The student investigates the political, cultural, sociological, educational and linguistic implications of multi-lingualism.

300 Linguistic Topics Prerequisite: 210.

351 Comparative History of Romance Languages A comparative study of the evolution of the Romance languages from Latin, with analysis of the most representative texts from each period and language. Particular emphasis is placed upon French, Italian and Spanish. (No knowledge of these languages is required.)

450 Comparative Linguistics An introduction to diachronic linguistic history of languages and historical grammar in general. Grouping of genetically related languages and comparison among them as methods for the reconstruction of older patterns in each group.

UNIVERSITY OF MICHIGAN
LINGUISTICS PROGRAM
COLLEGE OF LETTERS, SCIENCES AND ARTS

Linguistics investigates all aspects of spoken and written human language. It is especially concerned with the general principles of language structure, with the structure and history of particular languages and groups of languages, with the role of language in human experience, and with the techniques employed in analyzing and describing language.

The general field of linguistics includes several sub-fields. Phonetics and phonology are especially concerned with the sounds of speech. Phonetics emphasizes the manner in which speech sounds are produced by the vocal organs and phonology deals with the way in which sounds are organized in languages. Syntax examines the way in which smaller units of language, such as words, are organized into larger units, such as phrases and sentences. Semantics seeks to understand how the forms of language are used to express meaning. Historical and comparative linguistics are concerned with the ways in which languages change through time, with the variations in language from place to place, and with the possible relationship among languages. Historical linguistics also includes the study of the history of specific languages and language groups, and the reconstruction of prehistoric languages.

MAJOR REQUIREMENTS

The concentration (Major) in linguistics requires courses totaling at least 30 credit hours at the 300-level or higher, of which up to 6 credits may, with the approval of a concentration adviser, be cognate courses from another program or department. Foreign language courses will not, ordinarily, count as cognates, but courses about the structure or history of languages may do so.

Each concentrator will be required to take four courses that deal with areas central to linguistics:

1. One course in Phonology, ordinarily LIN 413.

2. One course in Syntax, ordinarily LIN 315.

3. One course in Linguistic Typology, ordinarily LIN 485.

4. One course in Semantics or Pragmatics

Beyond these four basic courses, each student should work with a concentration adviser in order to develop a program that meets his or her special interests. Among the possible foci that a concentration in linguistics allows are the following.

1. Linguistics and a Language Students who wish to combine linguistics with work in a particular language can take courses dealing with the history and structure of that language.

2. Individual, Society, and Language Students interested in language as related to society and the individual can combine the basic courses in linguistics with courses drawn from socio-, psycho- and anthropological linguistics.

3. Computational Linguistics A basic set of courses in linguistics can be combined with several courses in computer science.

4. The Linguistics of Texts and Discourse Students interested in applying the methods of linguistic analysis to natural spoken and written texts can combine the study of linguistics with the linguistic analysis of texts.

5. Linguistics and Language Learning Students can combine the basic set of linguistic courses with others that focus upon second language acquisition and with those that treat the acquisition of their first language by children that are offered by both the Program and the Psychology Department.

6. Linguistic Analysis Students who desire a more intensive concentration in the analysis of language can complete their concentration with more advanced courses in linguistics.

COURSES

112 Languages of the World

113 Language Logic and Argumentation

180 English for Foreign GSTAs

181 English for Foreign GSTAs II

210 Introduction to Linguistics

211 Introduction to Language

272/ANTH Language in Society

310 Language and Cognition

311 Language use in Human Affairs

312 Introduction to the Analysis of Sound

313 Language History

314 Discourse and Discipline

315 Introduction to Sentence Analysis

316 Discourse and Discipline

320 Microcomputer Linguistics

350 Child Language Acquisition

351 Second Language Acquisition

352 Child Bilingualism

353 Introduction to Psycholinguistics

354 Language and the Public Interest

360 ESL Theory, Methods, and Tests I Prerequisite: One introductory course in LIN.

361 ESL Theory, Methods, and Tests II Prerequisite: 360.

363 English Grammar for Applied Linguistics

365 ESL Materials Development

366 Observing Teaching and Learning of ESL

370 Language and Language Policy of the USSR

401 Grammatical Categories and Linguistic Analysis

406/ENG Modern English Grammar

409/ANTH 472 Language and Culture

410/ANTH 474 Nonstandard English

411 Introduction to Linguistics

412 Phonetics

413 Phonology

414 Semantics and Pragmatics

415 Syntax II Prerequisite: 315.

416 Field Methods in Linguistics Prerequisite: one course in phonology and one in syntax.

417/ANTH 476/GER 417 Principles and Methods of Historical Linguistics Prerequisite: LIN 411.

418 Functionalism and Typology

419 Discourse Analysis

420 Microcomputer Linguistics Prerequisite: 411.

424 Child Second Language Learning

425 Introduction to Pidgins and Creoles

440 Linguistics and Language Teaching

442/ANTH 478 Introduction to Sociolinguistics Prerequisite: 411.

444 Linguistics and Language Teaching

447 Introduction to Psycholinguistics

451 Development of Language and Thought

454 Linguistics and Reading

459 Introduction to Psycholinguistics

463 English Grammar for Teachers of English as a Second Language

464 Semantics and Pragmatics for Applied Linguistics

471 English Syntax

472 Theory of Grammar

473/ANTH Ethnopoetics: Cross-Cultural Approaches to Verbal Art Prerequisite: Two courses in ANTH, LIN or LIT.

477 History of Linguistics

480/GNE 430 Writing and Writing Systems Prerequisite: 411.

485 Linguistic Typology Prerequisite: 411.

486 American Indian Languages Prerequisite: One course on phonology and one in syntax.

492 Topics in Linguistics

UNIVERSITY OF MINNESOTA
LINGUISTICS DEPARTMENT
COLLEGE OF LIBERAL ARTS

Linguistics is the science of human language and the principles governing its structure, acquisition, use, and change.

MAJOR REQUIREMENTS

3001 or 5001, 3301 or 5301, 3601 or 5601, 5201, 5302; twelve additional credits in 3xxx or 5xxx linguistics courses (no more than eight in one area, such as phonology or syntax); or 5002 and 16 additional credits in 3xxx or 5xxx linguistics courses. Related courses in other departments may be applied to the major with the approval of the director of undergraduate studies.

Three years college study in one foreign language, or two years in one and one in a second (requirement may be satisfied by examination); three credits in history and/or structure of one language studied.

At least seven of the linguistics courses counted toward the major must be taken A-F.

MINOR REQUIREMENTS

Four courses, including 3001 and two of the following: 3301, 3601, 5201.

COURSE DESCRIPTIONS

1001 The Nature of Human Language Facts and theories concerning human language and their relevance to the study of human behavior.

1005 Language and Society The role of language in human social interaction; linguistics indicators of social status and attitudes; language and sex roles; linguistic ecology; language planning for multilingual communities; implications for educational and sex roles; linguistic ecology; language planning for multilingual communities; implications for educational and public policy.

3001 Introduction to Linguistics Phonetics, phonology, morphology, syntax, semantics and historical-comparative linguistics; language learning and psychology of language; linguistic universals; language in society.

3101 Languages of the World Survey of language families of the world; classifying languages genetically and typologically; historical relationships among languages.

3111 Writing Systems and Decipherment The origin and history of writing. Types of writing systems. Alphabetic scripts and transliterations. Relationships between writing and speech. Codes and code breaking. Decipherment of ancient languages.

3301f Phonetics Physiology and acoustics of speech sounds; practice in production and perception.

3601 Introduction to Historical Linguistics Processes of language change in phonology, syntax and semantics; linguistic reconstruction; origin of language; language families; development of writing.

3711 Techniques for Language Self-Instruction Linguistic principles and techniques for acquiring command of a second language through individual study; concurrent study of a language through self-instruction.

3811 Language Loyalty and Bilingualism in Minnesota Linguistic ecology; maintenance and loss of immigrant and native languages in America; linguistic borrowing; foreign accents; types of bilingual behavior; research strategies; student research on bilingual communities in the Twin Cities and surrounding areas.

5001 Introduction to Linguistics For description, see 3001.

5002 Linguistic Analysis Prerequisite: 3001 or 5001. Techniques for analyzing phonological, morphological and syntactic data from a variety of languages; discovering stating and justifying generalizations; comparison of diverse languages.

5003 Applied Phonetics Prerequisite: 5001. Primarily for teachers of English as a second language.

5006 Experimental Phonetics Prerequisite: 3301 or 5301. Physiological and instrumental studies of speech. Laboratory.

5011-5012-5013 Mathematical Linguistics The propositional and first-order predicate calculi; non-classical logics; set theory; axiomatics; algebra; grammar; automata theory.

5101 Language Types and Linguistic Universals Prerequisite: 3001 or 5001. Comparison of languages and language types; cross-linguistic similarities and universals of language and their explanation.

5201w-5202s Introduction to Syntax Prerequisite: 3001 or 5001. 5201: Principles of grammar construction and evaluation; syntactic phenomena in a variety of languages. 5202: Modern syntactic theory.

5206f Advanced Syntax Prerequisite: 5202, 5302. The nature of syntactic argumentation; validation and comparison of theories, models and analyses.

5211 Semantics Prerequisite: 5011, 5202. Linguistic analysis and explanation of synonymy, analyticity, presupposition and other meaning phenomena in natural language; alternative theories of meaning.

5212 Linguistic Pragmatics Prerequisite: 5002, 5201. Analysis and description of linguistic phenomena in relation to beliefs and intention of language users; speech act theory, conversational implicature, shared knowledge and presupposition, topic-comment structure, discourse coherence.

5301f Phonetics For description, see 3301.

5302w-5303s Introduction to Phonology Prerequisite: 3301 or 5301. 5302: Formulation and evaluation of phonological descriptions and examination of phonological processes in a variety of languages. 5303: The standard theory of generative phonology; comparison with alternative theories.

5304 Advanced Phonology

5401-5402 Computational Linguistics. Methods and issues in computer processing of natural language: LISP and Prolog programming languages. 5402: Implementation of natural language understanding systems in LISP and Prolog.

5503 Introduction to Applied Linguistics Prerequisite: 3001 or 3005 or 5001. The role of linguistics in neighboring disciplines; applications to practical fields such as lexicography, orthography, translation, language planning, reading, English and foreign language teaching, bilingual education, education of the deaf and correction of language disorders; computer applications; forensic applications.

5601 Introduction to Historical Linguistics Prerequisite: 3001 or 5001. For description, see 3601.

5602, 5603 Language Change and Linguistic Reconstruction Prerequisite: 3601 or 5601, 5201, 5302. Phonological and syntactic change; internal and comparative approaches to linguistic reconstruction.

5605f-5606w Indo-European Linguistics Prerequisite: 3601 or 5601. Reconstruction of Proto-Indo-European phonology, morphology and syntax; principal developments in major Indo-European languages.

5691 History of Linguistics Prerequisite: 3601 or 5601, 5202, 5303. Objectives and methods of linguistic analysis from antiquity to present.

5701 Contrastive Linguistics Prerequisite: 5002 or 5201 and 5302, 5003. Comparison of related sets of data in different languages; implications for linguistic theory and foreign language learning.

5702 Second-Language Acquisition Prerequisite: 3001 or 5001, 5002 or 5201 and 5302, 5701. Empirical and theoretical studies of second-language acquisition and processing.

5705 Introduction to English as a Second Language Current issues in teaching English as a second language; grammatical, phonological and lexical systems of English; testing and evaluation; classroom applications to skills of listening, speaking, reading, writing; evaluation of instructional materials. Lectures and discussion sections.

5711-5712 Field Methods in Linguistics Prerequisite: 5202, 5303. Techniques for obtaining and analyzing linguistic data from unfamiliar languages through direct interaction with a native speaker.

5721 English as a Second Language: Methods Prerequisite: 3001 or 5001. Linguistics applied to teaching English as a second language.

5722 English as a Second Language: Practicum Prerequisite: 5721. Observation and practice in teaching English as a second language.

5723 English as a Second Language: Materials Prerequisite: 5721, 5722. Application of linguistics to evaluation and preparation of materials for teaching English as a second language.

5731-5732 A Contrastive Approach to Modern English Prerequisite: 3001 or 5001. Linguistic structures of standard English and contrastive analysis of these structures with those of another language, with implications for the learning of English as a second language.

5741-5742 Linguistic Description of Modern English Prerequisite: 3001 or 5001.

5801 Introduction to Language Learning Overview of first and second language learning.

5805 Psycholinguistics Prerequisite: 5002 or 5201 and 5302. Empirical and theoretical studies of language acquisition and processing.

5811 Introduction to Language Variation Prerequisite: 3001 or 5001. Basic issues in language variation; regional determinants of variation, social determinants of variation, multilingual speakers and their societies, language planning.

5821 Sociolinguistics Prerequisite: 3001 or 5001. Social determinants of linguistic diversity, variability and change; linguistic behavior and social control; methods of community-based linguistic research.

5910 Seminar in Linguistics

UNIVERSITY OF MISSOURI AT COLUMBIA
LINGUISTICS PROGRAM
DEPT. OF ANTHROPOLOGY
COLLEGE OF ARTS AND SCIENCES

Linguistics is the study of human language as a dimension of human behavior. It seeks to understand and explain language in a clear and formal manner. Although specialists in this field commonly do know one or more foreign languages, such knowledge is complementary rather than essential

The major in linguistics, leading to the AB degree, offers students a liberal education and prepares them for post-graduate study in linguistics or a related field. Many professional opportunities in linguistics require an advanced degree or a second major. A student in linguistics develops verbal and analytical skills that are valuable in many different careers.

MAJOR REQUIREMENTS

The major requires at least 24 semester hours in linguistics courses numbered 100 or above, including the three core courses 371, 372 and 374 and one of the following: 120, 306, 308, 373, 383 or 393. No more than six hours of 350 may be included in the major.

COURSES

20 Introduction to Language Science

120 Languages of the World

308 Historical Linguistics

310/French 311 History of the French Language

312/Speech and Dramatic Art 312 Psychosocial Aspects of Speech

313/Classical Studies 311 History of the Greek and Latin Languages

314/Philosophy 314 Symbolic Logic

319/English 319 Structure of American English

320/English 320 History of the English Language

321/Speech Pathology/Audiology 210 Speech Science

322/English 322 Regional and Social Dialects of American English

323/English 323 Principles of Teaching English as A Second Language

335/Philosophy 335 Philosophy and Language

346/Anthropology 346 *Language and Culture*

350 *Readings in Linguistics* (arranged)

360/Spanish 360 *Phonetics*

361/Spanish 361 *History of the Spanish Language*

364/Philosophy 364 *Analytical Philosophy*

365/Russian 365 *History of the Russian Language*

366/Russian 366 *Structure of the Russian Language*

371 *Introduction to General Linguistics* (prerequisite for all other 300-level courses in Linguistic theory)

372 *Techniques of Linguistic Analysis*

373 *Linguistic Phonetics*

374 *Issues in Linguistic Analysis*

378/French 378 *Structure of Modern French*

379/Spanish 379 *Structure of Modern Spanish*

383 *Studies in Linguistics* (variable topics; may be repeated)

393 *Field Methods in Linguistics*

400 *Problems in Linguistics* (arranged)

411/Speech Pathology/Audiology 410 *Acoustic Phonetics*

412/Speech Pathology/Audiology 411 *Physiological Phonetics*

417/English 417 *Studies in the English Language* Regular Topics: The Language of Literature; the Acquisition of a Second Language

418/English 418 *Introduction to Old English*

428/Psychology 428 *Studies in Psycholinguistics*

446/Anthropology 446 *Seminar in Anthropological Linguistics* (may be repeated for different topics)

460/German 460 *History of the German Language*

461/German 461 *Middle High German*

483 *Seminar* (Variable topics; May be repeated)

490 Research in Linguistics (arranged)

492/Anthropology 492 Structure of a Language and Language Typology

493 Phonology (Prerequisite: 372 or 373; graduate standing)

494 Syntax (Prerequisite: 374; graduate standing)

UNIVERSITY OF MONTANA
LINGUISTICS PROGRAM
COLLEGE OF ARTS AND SCIENCES

Linguistics is the science that investigates the structure of languages and their dialects that are in use, or have been in use, throughout the world. Its goal is to investigate specific languages in order to construct a theory of language that will account for all human behavior. Because human language provides one nexus of human behavior, linguistics has implications for many other disciplines-anthropology, foreign languages, literature, philosophy, psychology, and sociology, just to name a few. Although the University offers no separate degree in linguistics, a student can earn a bachelor degree in anthropology, English, or foreign languages with major concentrations (Minor) in linguistics.

MINOR REQUIREMENTS

A core curriculum in linguistics is required of all students electing individual majors with concentrations in linguistics:

LIN 301 Introduction to Linguistics

LIN 311 Generative Phonology

LIN 312 Generative Syntax

LIN 316 Historical Linguistics

LIN 450 Advanced Topics in Linguistics (6 credits)

Students interested in such degrees should examine the degree requirements in these departments and confer with both the advisers in the individual departments and the chair of the Linguistics Program.

COURSE DESCRIPTIONS

118 Introduction to Language A survey of the elements of language (structure, meaning, and sound) including language use in its social and cultural context.

195 Special Topics

198 Cooperative Education Internship

219 Phonetics Transcription (International Phonetic Alphabet) and standards of pronunciation and dialect.

250 English for Foreign Students: Intermediate

301 Introduction to Linguistics An introduction to the science of modern linguistics and to the nature of language.

302 Introduction to Linguistics: Part II Continuation of 301 with an emphasis on linguistic argumentation, linguistic terminology, and the format for presenting linguistic data.

311 Introduction to Generative Phonology An introduction to the principles of phonological analysis. Prerequisite: 301.

312 Introduction to Generative Syntax An introduction to the principles of syntactic analysis in a generative theory. Prerequisite: 301.

313 Introduction to Semantics An introduction to the principles of semantic analysis in a generative theory. Prerequisite: 301.

314 Social and Regional Dialectology An introduction to the principles of social and geographical dialect fieldwork and analysis. Prerequisite: 301.

315 Language and Culture Technical study of the relationships between grammar categories and world view. Prerequisite: 301.

316 Historical Linguistics The principles of internal reconstruction and the comparative method for reconstructing earlier stages of languages. Prerequisite: 301.

317 Linguistic Methods Phonemic, morphological and semantic analysis of an unwritten language, using a native informant. Prerequisite: 301.

318 Child Language Acquisition The development of speech and language: phonologic, prosodic, semantic, pragmatic, and morphosyntactic systems.

319 Bilingualism Topics include: language maintenance, planning, and interference; code switching and mixture; and bilingual education. Prerequisite: 301.

320 The Structure of Modern English Prerequisite: 301.

321 The History of the English Language

324 Teaching English as a Foreign Language Prerequisite: ENG 310 or 312.

331 History of the French Language Prerequisite: FRE 303.

335 Topics in Linguistic Structure of French Prerequisite: 301.

339 Applied French Linguistics Prerequisite: 301.

341 The History of the German Language Prerequisite: GER 311, 312, 313.

349 Applied German Linguistics Prerequisite: 301 or GER 302.

361 The History of the Spanish Language Prerequisite: SPAN 302.

369 Applied Spanish Linguistics Prerequisite: 301.

371 History of the Russian Language Prerequisite: RUSS 303.

380 Language and Society An examination of the ways language functions to fashion groups, situations, relationships and memberships in contemporary society. Prerequisite: SOC 101 and 15 credits in SOC.

395 Special Topics

398 Cooperative Education Internship

401 Introduction to Psycholinguistics The study of the interrelationships between linguistic message and characteristics of people who use and interpret those messages. Prerequisite: COMM 118.

410 Advanced Psycholinguistics Selected topics in Psycholinguistics research and theory. Emphasis on contribution of linguistic theory to the study of language behavior. Prerequisite: 318, 401.

415 Philosophy of Language Structure and functions of natural and ideal languages; the relations of language to thought and to reality.

420 North American Indian Linguistics Prerequisite: 301.

450 Studies in Linguistics

470 English for Foreign Students: Advanced

510 Seminar in Linguistics

UNIVERSITY OF NEVADA AT LAS VEGAS
LINGUISTICS PROGRAM
COLLEGE OF ARTS AND LETTERS

The Linguistics Studies program offers an opportunity to study, analyze and describe the structure of contemporary languages, their development in the past, differences between their dialects, distribution of language families and linguistic types throughout the world.

A better understanding of the nature of language is important for every educated person, and the knowledge of linguistics is indispensible for teachers of English or foreign languages, anthropologists, philosophers, psychologists, librarians, students of literature, folklore and history, social workers, businessmen, hotel administrators and many other professionals.

MAJOR AND MINOR REQUIREMENTS

The Bachelor of Arts degree in Linguistic Studies requires a minimum of 36 credit hours, and the minor in Linguistic Studies requires 18 credit hours. These should include:

1. One three-credit introductory course in linguistics (students may choose among ANT 113, ENG 111 or FOL 311).
2. In addition to University requirements, a minimum of 6 credit hours in one or two foreign languages (equivalent knowledge may be approved by the student's adviser in waiver of this requirement).
3. With the approval of the student's adviser, the remaining hours may be chosen from the following list of courses. Majors are expected to take at least two courses from each group.

COURSES

GROUP 1

(Anthropology):

ANT 113 Anthropological Linguistics

ANT 370 Language and Culture

ANT 434 Legends, Myths and Customs: Folklore and Culture

ANT 436 Latin American Ethnohistory

ANT 471 Advanced Linguistics I

ANT 472 Advanced Linguistics II

ANT 491 Linguistics Colloquium

(Psychology):

PSY 417 Psycholinguistics

GROUP II

(English):

ENG 210 Introduction to Semantics

ENG 211 Linguistics

ENG 411 Advanced Linguistics

ENG 412 Principles of Modern Grammar

ENG 414 Development of American English

ENG 415 History of the English Language

ENG 416 Old English I

ENG 418 Linguistics Colloquium

ENG 420 Middle English Language and Literature

ENG 490 Seminar in Language and Cognition

(Philosophy):

PHI 103 Introduction to Formal Logic

PHI 421 Symbolic Logic

PHI 437 Philosophy of Language

PHI 456 Philosophy of Culture

GROUP III

(Foreign Languages):

FOL 311 Introduction to Linguistics

FOL 414 Introduction to Romance Languages

FOL 416 Comparative Linguistics: Languages of the World

FOL 499 Application of Linguistics to the Teaching of Languages

FRE 412 French Phonetics

GER 311 Introduction to German Linguistics

GER 412 German Phonetics

SPA 412 Spanish Phonetics

SPA 493 Spanish Language in the Americas

Students are expected to take two independent study courses with the approval of a member of the Linguistic Studies Committee.

UNIVERSITY OF NEVADA AT RENO
LINGUISTICS PROGRAM
ENGLISH DEPARTMENT

MAJOR REQUIREMENTS

The linguistics major is administered through the English Department.

ENG 281, 311, 415 or 416, 385 (9 credits)

ENG 411 or 414, 413, 417, 451 (12 credits)

Additional courses to be selected from courses numbered 291, 292, 293, 316, and any course numbered 400 or above (11 credits).

MINOR REQUIREMENTS

ENG 281 (3 credits)

ENG or ANT 311, 316, 415, 416, FLL 455, or GER 455 (3 credits)

ENG 385 or 419 (3 credits)

ENG or ANT 411, 414, or ANT 305. (3 credits)

ENG 413, FLL 458, or GER 458 (3credits)

ENG 417 or 451.

COURSE DESCRIPTIONS

ENG 281 Introduction to Language Nature and function of language, including an introduction to the linguistic subsystems of modern English and the development of the English language.

ANT 305 Anthropological Linguistics Distribution of languages of the world. Descriptive techniques and theoretical concepts in linguistics; their application to specific problems in anthropology. Prerequisite: ANT 101.

ENG/ANT 311 Applied Linguistics Modern approaches to language and their applications, designed for those in other disciplines, as well as English. Prerequisite: ENG 281 or 282.

ENG 385 Descriptive Grammar Prerequisite: ENG 281.

ANT 405 Anthropological Linguistics Prerequisite: 101.

ENG/ANT 411 Linguistics Studies in general linguistics. Prerequisite: ENG 281 or 282.

ENG/ANT 413 History of the Language Prerequisite: ENG 281.

ENG/ANT 414 Historical Linguistics General principles of historical and comparative linguistics. Theories of language origin, methods of classifying language, processes of language change, techniques of reconstructing older forms of languages. Prerequisite: ENG 281.

ENG/ANT 415 Phonemics and Comparative Phonetics Phonetic phenomena that occur in languages of the world. Phoneme concept as applied to the analysis of speech sounds. Prerequisite: ENG 281 or SPA 259.

ENG/ANT 416 Linguistic Field Methods

ENG 417 Old English Prerequisite: ENG 281.

ENG 418 Beowulf Prerequisite: ENG 417 or equivalent.

ANT 420 American Indian Languages Prerequisite: ANT 316.

ANT 429 Language and Culture Nature of language in light of anthropological research, diversity of the world's languages, relation of language to social organization and world view. Prerequisite: ANT 101.

ENG 436 Theories of Second Language Acquisition Survey of major theories of second language acquisition and their potential applications to language teaching. Prerequisite: ENG 281, 385.

FLL/ROMANCE 455 Applied Romance Linguistics Prerequisite: FRE or SPA 306.

FLL/ANT/BASQ 455 Introduction to Basque Linguistics Prerequisite: ANT 305 or ENG 281.

FLL/GER 455 Applied German Linguistics Prerequisite: GER 306.

FLL/ROMANCE 458 History of the Romance Languages Prerequisite: FRE or SPA 306.

FLL/GER 458 Introduction to the History of the German Language Prerequisite: GER 306.

UNIVERSITY OF NEW BRUNSWICK
LINGUISTICS PROGRAM
FACULTY OF ARTS

Linguistics is one of the most unusual subjects in the university curriculum. It is a broad-based field, ranging from abstract mathematical and philosophical theory, to the relationship of the behavioral sciences to language, to simple, fun-and-games word play.

Linguistics is an interdepartmental program within the Faculty of Arts. The Linguistics Program combines courses in the traditional areas of linguistics and in more specialized and related disciplines. It is administered by a committee drawn from the departments involved in the program.

The Linguistics double major gives students an opportunity to pursue an interesting and practical program. From a practical side linguistics can provide a theoretical basis for the treatment of language disorders such as aphasia or reading problems, for the planning of "language arts" programs in the schools, the fight against illiteracy in many nations of the world, bilingualism and the learning of foreign languages. Philosophical interests have also spurred language study, because from earliest times language has been considered a mirror of the mind.

With the addition of only a few courses to their major in Psychology, Sociology, Anthropology, History, Philosophy, French, German, Russian, English, Classics, Mathematics or Computer Science (to name some of the relevant related disciplines) students will be able to qualify for a double major in Linguistics.

MAJOR REQUIREMENTS

Linguistics is offered as part of a Double Major in conjunction with a Major program offered by another department in the Arts Faculty.

The three components of the Double Major are:

1. The three required courses in Linguistics: ANTH 2401, 3411 and 3422.
2. At least 15 but not more than 27 additional credit hours from the courses listed as groups A and B below (with not more than 6 credits from Group B), or from other courses approved by the Director of Linguistics Studies.
3. The courses chosen to fulfill prerequisites or major requirements must be completed with a mark of C or better, and cannot count towards the other subject of the Double Majors Program.

REQUIRED COURSES

ANTH 2401 Introduction to Language Examination of what language is and how its structure may be analyzed; theories of language origin; phonology and morphology.

ANTH 3411 Phonetics and Phonemics A detailed study of the production of speech sounds, their acoustic properties, transcription, and the analysis of speech sounds as a system.

ANTH 3422 Morphology and Syntax A detailed study of word construction and the structuring of words into sentences.

COURSES

GROUP A

ANTH 3412 Language and Culture

ENGL 3030 Linguistic Introduction to Canadian English

FREN 3220 Comparative Structure and Lexicology

FREN 3412 Introductory French Linguistics

FREN 3414 Sociolinguistics of French

FREN 4220 Theory and Practice of Translation

GER 3033 Introduction to Linguistics

GER 4023 Seminar III: Linguistics

GROUP B

ANTH 3431 Nonverbal Communication: Interdisciplinary Theory and Methodology

CLAS 2103 Vocabulary Building: Greek and Latin Elements in English

CS 4613 Programming Languages

ENGL 3020 History of Canadian English

ENGL 3053 Introduction to Anglo-Saxon

FREN 3034 Advanced Oral French I

FREN 3054 French Composition I

FREN 3241 Phonetics

FREN 4034 Advanced Oral French II

FREN 4054 French Composition II

GER 3011 Modern German Usage I

GER 3022 Modern German Usage II

GER 4013 Advanced German Usage

PHIL 3010 Linguistic Philosophy

PHIL 3060 Linguistic Moral Philosophy

PSYC 3012 Nonverbal Communication

PSYC 3212 Language Development

SOCI 3223 Language and Society

SPAN 3203 Advanced Spanish I: Advanced Grammar

SPAN 3204 Advanced Spanish II: Conversation and Composition

SPAN 4203 Colloquial Spanish I: Grammar and Composition

SPAN 4202 Colloquial Spanish II: Translation and Conversation

LATIN or GREEK - Courses at any level

UNIVERSITY OF NEW HAMPSHIRE
LINGUISTICS PROGRAM
COLLEGE OF LIBERAL ARTS

Linguistics is the study of one of the most important characteristics of human beings: language. It includes the study of language history and dialects, the acquisition of language in children and adults, the structure and sound systems of English and other languages, speech physiology, neurology and linguistic universals. It cuts across the boundaries between the sciences and the humanities. Studying linguistics is an excellent way of learning scientific methodology and developing analytical skills, as its data -- spoken and written language -- is easily observed around us. It is also an excellent way of learning about culture, society and languages spoken all over the world. In short, it is a truly interdisciplinary major, having connections with and applications to psychology, philosophy, biology, computer science, sociology, anthropology, literature and communication disorders.

The linguistics major is an excellent liberal arts major or preprofessional major for law, clergy, government service, jobs in business which require language skills and other fields. Opportunities for Linguistics majors include jobs teaching English as a second language in the US, abroad or as a member of the Peace Corps, (with a dual major in a foreign language) jobs in teaching, government or industry (with a dual major or minor in computer science) in industry.

MAJOR REQUIREMENTS

1. 505, either 506 or Eng 752, 794, 793;
2. The equivalent of two years study of one foreign language;
3. Either the equivalent of one year's study of a second foreign language from a different family or subfamily, or Psyc 712, Phil 745;
4. Four elective courses.

MINOR REQUIREMENTS

The linguistics minor consists of any five linguistics courses approved by the coordinator of the linguistics program.

COURSE DESCRIPTIONS

505/Engl 505 Introduction to Linguistics An overview of the study of language: animal communication vs. human language, universal properties of human language, Chomsky's innateness hypothesis, language acquisition in children, dialects and language variation, language change. Includes an introduction to modern grammar (phonology, syntax and semantics) and to scientific linguistic methodology.

506/Clas 506 Introduction to Comparative and Historical Linguistics Major language families (primarily Indo-European) and the relationships among languages within a family. Diachronic studies; methods of writing; linguistic change; glottochronology; etymological studies.

790/Engl 790 Special Topics in Linguistic Theory

793/Engl 793 Phonetics and Phonology The sound system of English and of other languages as viewed from the standpoint of modern linguistic theory. Prerequisite: a basic course.

794/Engl 794 Syntax and Semantic Theory The relationship of grammar and meaning as viewed from the standpoint of modern linguistic theory. Prerequisite: a basic course.

Fre 791 Methods of Foreign Language Teaching Also Spanish, German, Latin , and Russian 791.

Anth 795 Anthropological Linguistics (Ind. Study)

Clas 411-2 Hittite

Clas 595-6 H, Sanskrit

Comm 522 The Acquisition of Language

Comp Sci 760 Semantic Issues in Natural Language Processing

Comp Sci 762 Introduction to Natural Language Processing

Engl 715 Applied Linguistics: Teaching English as a Second Language

Engl 716 Problems in Applied Linguistics

Engl 718 English Linguistics An introduction to linguistics for students of literature.

Engl 752 History of the English Language

Engl 778 Brain and Language An introduction to neurolinguistics, a study of how language is related to the structure of the brain.

Engl 779 Linguistic Field Methods

Psyc 511 Introduction to Perception, Language, and Thought

Psyc 712 Psychology of Language

Phil 550 Symbolic Logic

Phil 618 *Recent Anglo-American Philosophy*

Phil 650 *Logic: Scope and Limits*

Phil 745 *Philosophy of Language*

Russ 734 *History and Development of the Russian Language*

Sociol 797F *Sociolinguistics*

Span 601 *Spanish Phonetics*

Span 733 *History of the Spanish Language*

Span 790 *Grammatical Structure of Spanish*

ThCo 572 *Language and Behavior* (Theater and Communication)

ThCo 783 *Theories of Language* (Theater and Communication)

UNIVERSITY OF NEW MEXICO
LINGUISTICS DEPARTMENT
COLLEGE OF ARTS AND SCIENCES

The Department of Linguistics offers a B.A. major and minor in Linguistics in the College of Arts and Sciences and contributes to linguistics-related degree programs in other departments and colleges. The Department offers a range of courses in the core areas of phonetics, phonology, syntax, and semantics as well as in the interdisciplinary fields of applied linguistics, psycholinguistics, and sociolinguistics. Heavy emphasis is placed upon the role of language in culture and society, particularly in the Southwest, and upon the educational applications of the language sciences.

MAJOR REQUIREMENTS

The B.A. Major in Linguistics requires a minimum of 36 hours numbered above 200 (24 in required courses, 12 in approved electives) and four semesters of a foreign language or the equivalent. Required courses are: LIN 292L, 303, 317, 318, 351, 367 or 362, 417, 418. The 12 hours in approved electives may be selected from courses in linguistics or from the following courses (others may be approved by the Department): COM DS 460, CIMTE 430, 442, 481; ENG 427; FRE 405, 440; GER 405, 445; NAVAJO 401; SPAN 340, 341, 441, 443, 544; PHIL 352, 356, 357, 445; SP COM 323, 325, 350, 423, 523. LIN 470 is strongly recommended for those planning to pursue graduate study in linguistics.

MINOR REQUIREMENTS

The minor requires at least 21 hours of linguistic courses numbered above 200: 292L, 303, 317, 318, and 9 additional hours selected from the requirements or approved electives for the major.

MAJOR OR MINOR IN THE COLLEGE OF EDUCATION

For the composite major in communication arts, the program leading to certification in TESOL, and teaching of reading in the secondary school, and composite minor in bilingual education, the course information is available through the "Department of Curriculum and Instruction in Multicultural Teacher Education" in the College of Education.

COURSE DESCRIPTIONS

101 Introduction to the Study of Language Broad overview of the nature of language: language structure, biology of language, language learning, language thought, bilingualism, social and regional variation.

110 Language, Culture, and Humankind Fundamentals of anthropological linguistics. Biological, structural, psychological, and social nature of language.

127 Workshop in Practical Linguistics

292L Introduction to Linguistic Analysis Basic concepts and technical vocabulary of language as a structured system: phonology, morphology, syntax, semantics.

303 English Phonetics

317 Phonological Analysis Phonetic principles and phonological theory, descriptive analysis of phonological systems, transcriptional practice and problems from selected languages. Prerequisite: 292L.

318 Grammatical Analysis Principles of morphological and syntactic analysis and the theory of grammar, descriptive analysis of grammatical structures. Prerequisite: 292L.

351 Language and Society Cross-cultural view of speech varieties as they reflect social organization. Topics include: social dialects, language contact, language attitudes, language policy and planning. Prerequisite: an introductory LIN course.

353 Bilingual Education: History and Theory Prerequisite: an introductory LIN course.

359 Language and Culture

362 Language Testing Prerequisite: an introductory LIN course.

367 Psychology of Language Theoretical and methodological issues in psycholinguistics, including comprehension, speech perception and production, language acquisition, bilingualism, brain and language, reading. Prerequisite: 292L or PSYCH 101 or 102.

405 North American Indian Languages

410 Topics in Anthropological Linguistics

413 Linguistic Field Methods

417 Phonological Theory Survey of problems in theoretical phonology with emphasis on generative phonology, formalization of rules, and universals. Prerequisite: 317.

418 Grammatical Theory Survey of theoretical grammar including cognitive approaches. Prerequisite: 318.

430 Development of Speech Language Normal developmental sequence of language development and communication behavior from birth to seven years. Specific areas of speech production, syntax, semantics, pragmatics and metalinguistics.

440 Introduction to Linguistics Broad overview of the field of linguistics; principles and practices of linguistic analysis, sociolinguistics, psycholinguistics, and educational linguistics.

441 English Grammar

446 Introduction to Comparative Linguistics Theories and methods of comparative and historical linguistics, emphasizing change in English, Indo-European, and Native American languages. Prerequisite: 317.

452 Sociolinguistic Variation Linguistic variability in relation to social status and situational context; attitudinal correlates of language stratification and sociolinguistic change in progress. Prerequisite: 351.

453 Societal Bilingualism Differential use of languages in multilingual societies; attitudinal correlates of use. Prerequisite: 351.

470 History of Linguistics Survey of methods and assumptions in the scientific study of language from antiquity to present. Prerequisite: 317, 318.

475 Comparative Romance Phonology Historical study of the sound changes from Latin into the ten Romance languages.

480 Second-Language PedagogySurvey of current theoretical and practical issues in second and foreign language instruction. Relationship of second to first language-learning.

482 Teaching English as a Second Language Prerequisite: 292L or 440.

COURSES IN OTHER DEPARTMENTS

ANTHROPOLOGY

ANT 346 Ethnography of Communication

ANT 352 Verbal Art

COMMUNICATION DISORDERS

COM DS 302 Introduction to Communication Disorders

COM DS 320 Acoustics and Perception of Speech

COM DS 350 Anatomy and Physiology of Speech and Hearing

COM DS 432 Assessment and Intervention in Language

CURRICULUM AND INSTRUCTION IN MULTICULTURAL TEACHER EDUCATION

CIMTE 436 Teaching of English

CIMTE 439 Diagnosis and Prescription in Elementary School Reading

CIMTE 442 Teaching of Reading

ENGLISH

ENG 445 History of the English Language

ENG 449 Old English

MODERN AND CLASSICAL LANGUAGES

SPAN 340 Spanish Phonology

SPAN 443 Spanish Morphology

PHILOSOPHY

PHIL 445 Philosophy of Language

SPEECH COMMUNICATIONS

SP COM 323 Nonverbal Communication

SP COM 325 Intercultural Communication

SP COM 423 Advanced Nonverbal Communication

UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
LINGUISTICS CURRICULUM (=PROGRAM)
COLLEGE OF ARTS AND SCIENCE

Courses in Linguistics are intended to open up systematic perspectives on the nature of human language; this is accomplished by means of detailed studies of language structure and language change, the sound system of language and the syntactic system of language.

MAJOR REQUIREMENTS

Students intending to major in linguistics are urged to satisfy both the foreign language and mathematical science requirements of the General College, with the following specifications:

1. Students choosing to satisfy the requirement by taking a language other than the one used to meet the entrance requirements are strongly encouraged to satisfy the General College foreign language requirement with a non-Indo-European language.

2. The basic requirement in Mathematical Science should be met by a selection from the following: PHIL 21, COMP 14, MATH 21, STAT 11.

Majors are required to take the introductory series LING 60, 61 and 62, plus 83 and at least three additional linguistics courses numbered 50-199, excluding 100.

Students majoring in linguistics are expected to complete at least through level four of a foreign language and are encouraged to study more than one language.

Students majoring in linguistics may either concentrate entirely in linguistics, following an approved program of linguistics courses beyond those listed above, or they may elect to pursue a program of study which combines the courses above with an approved sequence of courses in a field related to linguistics. Suggested second-field options are: linguistic anthropology, computer processing of language data, psychology of language, philosophy of language, sociology of language, study of a particular language or language family, applied linguistics. The second-field option will be planned in consultation with the student's adviser.

COURSE DESCRIPTIONS

9 Freshman Seminar

30 Introduction to Language A survey of the many aspects of human language, including the history of language, similarities and differences among languages, language and culture, dialects, writing systems, child language acquisition, animal languages, and the use of computers in analyzing languages. Linguistic methods used to describe and relate languages.

60 Sound Patterns in Language Introduction to the analysis and description of phonological systems. Includes some preliminary training in phonetics.

61 Introduction to Transformational Grammar

62 Linguistics Variation and Language Change

83 Linguistic Structuralism: Sources and Influences Linguistic structuralism as a background for modern theories of language.

100/ANTH 179 Introduction to General Linguistics An introduction to the scientific study of language. The nature of language structure. How languages are alike and how they differ.

101/ANTH 181 Introduction to Historical and Comparative Linguistics Emphasis upon the Indo-European family.

102 Approaches to Teaching English as a Foreign Language

116x English for Foreign Students

104/PHIL 101 Symbolic Logic

105/CPSC 120 Computer Organization

106/GREE 106 Greek Dialects

110/PHIL 110 Philosophy of Language

115 Topics in Linguistics

120/ANTH 180 Linguistic Phonetics

123/ANTH 183 Phonological Analysis Prerequisite: 120.

124 Phonology II Prerequisite: 123.

127 Morphology Crosslinguistic investigation of internal word structure: inflection and derivation, word formation rules vs. affixation, autosegmental morphology, and the interaction of morphology with phonology and syntax.

130/ANTH 190 Introduction to Grammar I Methods and theory of grammatical analysis within the transformational generative framework. Special emphasis on analyzing syntactic and semantic structures of English. Prerequisite: 100.

133 Introduction to Grammar II Prerequisite: 130

135 Prague School Structuralism Discussion of selected works by Trubetzkoj, Jakobson, Mathesius and other scholars associated with the Prague Linguistic Circle.

137 Semantics Semantics as part of linguistic theory: Montague grammar and compositional semantics, and explanatory universals in semantic theory.

140 Mathematical Linguistics Introduction to topics in logic, set theory and modern algebra with emphasis on linguistic application. Automata theory and the formal theory of grammar with special reference to transformational grammars.

142 Indo-European Culture and Society Survey of nonmaterial aspects of Indo-European society recoverable by linguistic reconstruction.

145 Language and Mind Relationship among linguistics, artificial intelligence, neurobiology, cognitive psychology, and the philosophies of mind, language, and science.

150 Introduction to Indo-European: Phonology A survey of the phonological systems of the major Indo-European languages and their development from Proto-Indo-European.

151 Introduction to Indo-European: Morphology Prerequisite: 150

162 The Structure of Chinese Introductory linguistics description of Modern Mandarin Chinese. Knowledge of Chinese not assumed.

170 Sociolinguistics

183 History and Philosophy of Linguistics

184/ANTH 184 Language and Culture

UNIVERSITY OF OKLAHOMA
LINGUISTICS PROGRAM

The linguistics major is an interdisciplinary program. It utilizes the faculties of the Departments of Anthropology, Communication, English, Modern Languages and Literatures, Philosophy and Psychology. The objectives of this program are to offer students a broad, balanced foundation for the scientific study of language. The program will provide the first stages of preparation for a career in linguistics and will enrich the training for careers in language arts, language teaching, communication, communication disorders, journalism, law, computer science and child development

MAJOR REQUIREMENTS

The undergraduate major requires twenty-four semester hours including Anthropology or Modern Languages and Literatures 1613, Anthropology 2303, Communication or Anthropology 1313, Anthropology 3053 or Summer Institute of Linguistics 3115, Anthropology 4353 or Summer Institute of Linguistics 3125, Anthropology 4313 and one course each in advanced phonology and advanced grammatical analysis.

In addition, linguistics majors must complete two years of course work in one foreign language and one year of course work in a second foreign language. One of these two languages must be non-Indo-European (e.g., Chinese, Japanese, Hebrew).

MINOR REQUIREMENTS

Students majoring in other subjects may complete a minor in linguistics. The requirements are Anthropology 1613 or 2303, Communication or Anthropology 1313, Anthropology 3053 and 4353, and one of the following: Anthropology 4313, 4550, English 4133, 4143 or German 5003.

COURSE DESCRIPTIONS

Anthropology

2303 General Linguistics Humanistic and formal study of natural languages: how they are similar to and different from one another in their use of speech sounds, logical structures and mechanisms that integrate events, objects and speakers in spatio-temporal contexts. The relationship between language and culture; language acquisition and language change.

4313 Techniques of Historical Linguistics Prerequisite: 3053. Brief survey of the development of historical linguistics; the comparative methods; internal reconstruction; types of linguistic change; relationships between linguistic and cultural change; new developments in the field of historical linguistics.

4353 Grammar: Morphology and Syntax Prerequisite: 3053. Survey of the various grammatical devices used for constructing words, phrases, clauses and larger discourse units, for placing shared information in time, space and other contextual dimensions, for facilitating communication through the backgrounding and foregrounding of old and new information. Description and analysis of non-Indo-European language materials.

4550 Linguistic Structures of North America Prerequisite: 2303. An examination of the structure of a number of native American languages which is intended to provide the major in linguistics or anthropology with a detailed knowledge of several important Indian tongues.

SUMMER INSTITUTE OF LINGUISTICS

The Summer Institute of Linguistics in cooperation with the Wycliffe Bible Translators, gives instruction in courses of value to anthropologists, instructors in foreign languages, linguistic analysts, and more specifically, to those persons who expect to work in areas where the languages have not been reduced to writing. Residence credit may be granted to students in the institute and to students regularly enrolled in the University in the courses approved for offering.

3112 Articulatory Phonetics Theory of formation of sound types; drill in recognizing, recording and reproducing these sounds. Practice with actual languages. Laboratory section drills.

3113 Beginning Phonology Background theory of sound systems of languages; procedures for determining such systems, including tone analysis. Methods for developing practical orthographies.

3125 Beginning Grammatical Analysis Analytical techniques for the investigation of the grammatical structure of language -- largely preliterate languages; morphemics; word structure; grammatical and situation role in the clause; sentence structure; discourse structure; extensive exercises in language analysis; field problem practicing analysis, usually on some Indian language of Oklahoma.

MODERN LANGUAGES AND LITERATURES

1613/Anthropology 1613 Introduction to the Languages of the World A survey of languages and language families of the world, where they are spoken and by whom. A comparison of different languages to illustrate various ways in which meaning can be expressed; language and history; choosing a standard language; language universals; whistle languages; drum language.

UNIVERSITY OF OREGON
LINGUISTICS DEPARTMENT
COLLEGE OF ARTS AND SCIENCES

The program offers instruction about the nature of human language, the structural variety of individual languages, and the methodology of conducting a linguistic investigation. The primary aim of linguistics as a science is to study the use and organization of human language in coding and communicating knowledge. Although linguists may study specific facts of many languages, they do so to gain insight into the properties and processes common to all languages. Such common features may in turn reflect universals of human cognitive, cultural, and social organization.

The baccalaureate degree in linguistics provides a solid foundation for further graduate studies in linguistics, philosophy, psychology, anthropology, sociology, computer-science, education, literature and languages, speech pathology, journalism, or communication.

MAJOR REQUIREMENTS

1. Two years of one foreign language and one year of another.

2. The following required courses in linguistics:

   a. Introduction to Linguistics

   b. Language of the World

   c. Phonetics

   d. Introduction to Phonology

   e. Syntax and Semantics I

   f. Syntax and Semantics II

   g. Historical and Comparative Linguistics

   h. Sociolinguistics

3. At least 12 additional credit hours selected either from linguistics courses in other departments listed as relevant to linguistics. At least 6 of these elective credits must be upper-division credits, including at least one undergraduate proseminar(407).

4. All courses applicable toward the major in linguistics must be taken on a pass-differentiated basis (letter grade). A grade D or lower cannot count toward the major.

5. The study program of linguistics undergraduate majors must be approved by the departmental undergraduate adviser.

COURSE DESCRIPTIONS

150 Structure of English Words

199 Special Studies

290 Introduction to Linguistics General introduction to the study of human language and to linguistics as a scientific and humanistic discipline. Universals of human language structure, function and use. The relation of linguistics to the humanities and the sciences.

295 Language, Culture, and Society Introduction to the ways in which language reflects culture, and in turn determines cultural world-view.

311 Languages of the World Prerequisite: 290 or 421. A survey of the variability and distribution of the languages of the world in terms of linguistic typology, genetic relationships, and geographic location.

401 Research

405 Reading and Conference

407 ProSeminar Detailed examination of specific topics and issues in linguistics, including but not limited to the following: history of linguistics, language contact, morphology, discourse pragmatics, conversational analysis, acoustic phonetics, psycholinguistics, language acquisition, applied linguistics. Prerequisite: 451, 452.

411 Phonetics Study and classification of human speech sounds according to articulatory features (articulatory phonetics) and perceptual properties (acoustic phonetics). Prerequisite: 290.

421 Elements of Linguistics Intended primarily for non-majors. The basic elements of language structure, function and use, including basic concepts of the lexicon, phonology, morphology, syntax, semantics, and language change.

426 Analysis of Language Structures Prerequisite: 450, 452. The structure of individual languages, language sub-families or families.

444 Second-Language Acquisition and Language Teaching Prerequisite: 290 or 421, 450, 451.

445 Second-Language Teaching Methods Prerequisite: 444.

450 Introduction to Phonology Study of sound systems in language. Interaction of sounds in context (assimilation and dissimilation rules). Phonemic contrasts, allophonic variation, and complementary distribution in relation to lexical coding of words, sound production, and sound perception. Prerequisite: 411.

451 Syntax and Semantics I The place of syntax in grammar and its interaction with the lexicon, semantics, and discourse-pragmatics. Prerequisite: 290 or 421.

452 Syntax and Semantics II Complex syntactic structure and their discourse function; embedded coordinate and subordinate clauses; nondeclarative speech acts. Prerequisite: 451.

460 Historical and Comparative Linguistics Introduction to the principles of language change and the methods of comparative and internal reconstruction. Prerequisite: 450, 451.

470 Empirical Methods in Linguistics Introduction to empirical, quantified methods of data collection and analysis; surveys, questionnaires, experimental design and elicitation, statistical evaluation of results; data primarily derived from, but not limited to, discourse, conversation, psycholinguistics, first and second language acquisition, speech pathology, speech and writing deficiencies. Prerequisite: 450, 451, 452.

490 Sociolinguistics Language in relation to social and interpersonal interaction.

UNIVERSITY OF OTTAWA
LINGUISTICS DEPARTMENT
FACULTY OF ARTS

Linguistics is the discipline which explores the structure of language and its role in human affairs. Language can be thought of in a variety of ways: as something children learn, as the product of cultures and social groups, as the medium of literature, as a window on the mind. Nothing characterizes the nature of mankind more than its ability to use language.

There are many advantages in studying linguistics. First, it is an essential part of a liberal education. It is also valuable as basic training for persons interested in teaching English, French or other languages. It is useful for translators, for work in special education or in areas of rehabilitative medicine such as audiology or speech therapy. Those interested in work with native peoples or immigrant groups in our society, or in aspects of mathematics and computer science, can also benefit from background training in linguistics. Philosophy, psychology and anthropology have all been strongly influenced by recent linguistic theory.

The Department of Linguistics offers a wide variety of courses, many without prerequisite, in the aforementioned areas. Students may combine linguistics with other disciplines or pursue full concentration (concentration = major) or honors programs.

MAJOR REQUIREMENTS

1. LIN 1101, 2100, 2110, 2120, 3115 (15 credits).

2. LIN 2125 or 3130 (3 credits).

3. One half-course (3 credits) in Sociolinguistics or Psycholinguistics chosen from: LIN 3122, 3140, 3141, 3143, 3151 or 3154.

4. Two and a half other LIN courses (15 credits) chosen in consultation with the Department.

The Department of Linguistics, in accordance with the general policies of the University of Ottawa, strongly encourages its students to become familiar with the two official languages of Canada. As a consequence, certain courses in the Department are taught interchangeably in English or French, and students may expect to do course work and /or readings in both languages. However, students may do their assignments and examinations, and may participate in class, in the language of their choice. Also, parallel courses are taught in French.

COURSE DESCRIPTIONS

1100 Introduction to the Study of Language Introduction th the study of language, that is, of what is common to all human speakers no matter what specific language they speak. The nature and structure of language.

1101 Introduction to Linguistics Introduction to the theory and methods of linguistics: phonetics, phonology, syntax, semantics and the lexicon.

2103 Descriptive Grammar of Modern English

2120 Phonetics Writing systems; speech physiology and articulation; segmental classifications; segmental and suprasegmental phenomena; phonetic transcription.

2124 Phonetics Applied to Second Language Teaching

2140 Sociology of Language Language viewed from the perspective of social structures and functions. Styles and levels of language in relation to their social uses.

2921 Structure of English and French Words

2930 Linguistics for Translators An introduction to basic concepts of linguistics required for the study of differential lexicology, contrastive grammar, and theory of translation.

2100 Phonology The nature and goals of phonological theory. Distinctive features. Levels of representation. Phonological processes and rules. Prerequisite: 1101.

2110 Syntax Introduction to current syntactic theory. Theoretical bases of generative grammar. Deep and surface structures. Prerequisite: 1101.

2125 Morphology Nature and goals of morphological theory. Word structure. The place of morphology in grammar. Inflection and derivation. Prerequisite or Corequisite: 2100 and 2110.

2131 Varieties of English Prerequisite: 1101.

2160 Linguistics Applied to Teaching English as a Second Language Prerequisite: 1101.

2912 Descriptive and Contrastive Grammar of English and French Prerequisite: 1101 or 1501.

2952 Second Language Testing Principles of evaluation of second language proficiency. Prerequisite : 1101.

3101 English Phonology Prerequisite: 2100.

3111 English Syntax Prerequisite: 2110.

3115 Semantics I Introduction to lexical semantics and the interpretation of sentences. Sense, reference and truth conditions. Links between syntax and semantics. Prerequisite: 2110.

3116 Semantics II Further discussion of topics examined in 3115. Prerequisite: 3115.

3118 Formal Foundations of Linguistics Set theory; its applications to phonology and semantics. Symbolic logic, propositional calculus. Prerequisite or Corequisite: 2110.

3121 Phonetics II Issues in theoretical, descriptive or applied phonetics. Prerequisite: 2120.

3122 Experimental Phonetics I: Speech Science Acoustic theory; acoustics, physiology and production of speech. Anatomy and physiology of hearing. Prerequisite: 2120.

3123 Experimental Phonetics II Laboratory exercises and seminars in speech analysis. Prerequisite: 3122.

3126 Lexicology and Lexicography Lexical structures and processes of lexical creation in the light of current linguistic theory. Prerequisite: 1101.

3130 Introduction to Historical Linguistics Language change; comparative and internal reconstruction as methods of investigating earlier stages of language development. Prerequisite: 2100 or 2110.

3132 History of English Prerequisite or Corequisite: 3130.

3135 Germanic Linguistics Prerequisite: 2100 and 2110.

3136 Romance Linguistics Prerequisite: 2100 and 2110.

3137 Comparative Indo-European Linguistics Historical and comparative survey of the development and relationships of the Indo-European family of languages. Prerequisite: 3130.

3140 Sociolinguistics Aspects of linguistic theory in the light of social structures and language functions. Topics include: variation, language change and discourse structure. Prerequisite or Corequisite: 2100 and 2110.

3141 Dialectology Theory of language variation and change. Compilation of dialect atlases, standard and non-standard varieties of language. Prerequisite or Corequisite: 2100 and 2110.

3142 Urban Dialectology I Analysis of language and social behavior on the basis of natural data gathered in the speech community. Prerequisite or Corequisite: 2100 or 2110.

3143 Urban Dialectology II Introduction to quantitative methods, within the framework of variation theory, for the empirical study of linguistic variation, of class and ethnic stratification, age and sex, and discourse analysis. Prerequisite: 2100 or 2110.

3145 Bilingualism Aspects of first and second language use including language contact phenomena, social and sociopsychological factors underlying bilingualism. Prerequisite or Corequisite: 2100 and 2110.

3150 Psycholinguistics Performance models in psychology and linguistics. Current research in information processing. Prerequisite or Corequisite: 2100 and 2110.

3151 First Language Acquisition Conceptual and methodological framework for the study of child language. Prerequisite or Corequisite: 2100 and 2110.

3154 Second Language Acquisition Theories of second language acquisition. Topics include: context of learning, adult versus child learners. Prerequisite or Corequisite: 2100 and

3155 Language Pathology and Neurolinguistics Neuroanatomical organization associated with language functioning. Prerequisite or Corequisite: 2100 and 2110. 2110.

3156 Speech Disorders Survey of clinical disorders of speech related to articulation, voice, fluency, and the perceptual hearing mechanism. Prerequisite: 2100 and 2110.

3170 History of Linguistics Historical overview of linguistic theory in Europe and north America. Prerequisite: 2100 and 2110.

3391 Linguistics and Philosophy Current controversies of common interest in syntax, semantics and pragmatics of natural language. Prerequisite: 2100 and 2110.

3906 Field Methods Prerequisite: 2100 and 2110.

UNIVERSITY OF PENNSYLVANIA
LINGUISTICS DEPARTMENT
SCHOOL OF ARTS AND SCIENCES

The major in linguistics is intended to acquaint the student with the methods and findings of the scientific study of language as a preparation for graduate training in this field or for work in related areas. Linguistic training is widely recognized as relevant to work in anthropology, philosophy, psychology, and language and literature, as well as to careers in education, computer science, law, etc.

The department offers both a major and, to exceptionally able students, an accelerated program which can lead to both bachelor's and mater's degrees at the end of the fourth year.

MAJOR REQUIREMENT

1. All students in the major program are required to take 10 course units in linguistics distributed over at least three of the six different areas offered by the department: structural and descriptive linguistics, ethnolinguistics, sociolinguistics, phonetics, historical and comparative linguistics, syntax/semantics.

2. All students will also take 4 course units from the following areas (with the approval of the undergraduate chairman): foreign language (not literature) courses other than those used to satisfy the foreign language requirement, courses in formal logic (Philosophy 5-6, Computer Science 581), formal grammars (Computer Science 350, 351), abstract algebra (Computer Science 250, 578), or in other formal systems.

ACCELERATED BA/MA PROGRAM

One program, leading to an M.A. in linguistics at the end of the senior year, consists of the major program and, in addition, at least 2 course units of seminars in linguistics (number 600 or higher) and 6 course units of other linguistics or listed major-related courses chosen in consultation with the major adviser.

COURSE DESCRIPTIONS

10 Fundamentals of the Grammar of Standard English

101 Introduction to Language The study of language and its structure: language and the mind; transformational-generative grammar; formal semantics.

102 Introduction to Language II The study of language and its structure: language origins; phonetics and phonology; morphology and the semantics of the lexicon; language change and diversification.

110 Introduction to Linguistics: Language Change Principles of language change and historical linguistics. Emphasis will be placed on the systematic regularity of change. Prerequisite: 101 or 102.

120 Elementary Phonetics What we do when we talk, what is produced and what we listen for; the phonetics of English and other languages.

SM 160 Introduction to Sociolinguistics The relevance of linguistic research to social problems of contemporary society.

165 American Dialects

SM 190 Language and the Law The role of linguist's testimony and advice in a range of legal cases. Issues covered include bilingualism, "plain language" in legal documents, the regulation of advertising.

405 Philosophy of Language An examination of the relation between language and so-called reality. Philosophy of language and philosophy of linguistics. Language and languages. Prerequisite: One LIN or PHIL course.

410 Semantics in Linguistic Theories An examination of the meaning of language. Semantics in other transformational theories. An historical survey of semantics.

423 Phonetics Practicum Practice in the perception, identification, production, and transcription of a full range of speech sounds.

SM 433 Introduction to Formal Properties of Grammar What kind of system is a grammar? What does it mean that a grammar is generative? Computable and uncomputable elements in grammar.

440 Pidgins and Creoles Theories of origin and development; problems of description in the creole continuum; implications of creole studies for general theories of language and language change.

450 Languages in Contact Multilingualism from a societal, individual, and linguistic point of view.

SM 459 Native American Languages Prerequisite: 101-102.

460 Dialect Geography The principles, practices and findings of dialect geography from the nineteenth century to the present. Prerequisite: 102.

472/ORIEN 472 History of the Chinese Language Prerequisite: ORIEN 73.

473/ORIEN 473 The Structure of Chinese

501 Introduction to Ethnolinguistics and Sociolinguistics Linguistic and cultural categories. Language structure as related to language use. Language change as a social process.

503 Phonology Introduction to the analysis and description of phonological theory; practice in problem solving and restatement. Prerequisite: 101 or 102.

510 Introduction to Historical and Comparative Linguistics History of the field. Synchrony and diachrony. Ancestry and descent. Effects of contact.

511 Internal Reconstruction and Comparative Method Alternations. Phonological rules and sound-changes. Correspondences. Isoglosses and trees. Prerequisite: 510.

520 Introduction to Phonetics The aims, techniques, and problems of phonetic research; describing physical aspects of speech communication; mechanisms of speech productions and their acoustic effects.

540 Linguistics and Mathematical Logic Can the syntax and semantics of mathematical logic be used as a theory of natural languages? Recursive definition of the notion of a sentence as the idea for generative grammars.

550 Introduction to Transformational Grammar A general introduction to the theory of generative-transformational grammar. Phrase structure grammars and their limitations.

551 Intermediate Transformational Grammar Cyclic rule application, controversies over deep structure, constraints on transformations. Prerequisite: 550.

560 The Study of the Speech Community: Field Methods

562 Quantitative Study of Linguistic Variation Multivariate analysis of data gathered in continuing research in the speech community. Prerequisite: 560.

563 Sound Change in Progress The study of current sound changes in the speech community through instrumental means. causes of linguistic diversity and consequences for speech recognition. Prerequisite: 520.

573/ORIEN 573 Topics in Chinese Linguistics Prerequisite: ORIEN 473.

590 Linguistic Pragmatics Introduction to the study of linguistic pragmatics, the branch of linguistics whose goal it is to provide a formal characterization of discourse competence. Prerequisite: syntax course.

UNIVERSITY OF PITTSBURGH
LINGUISTICS DEPARTMENT
FACULTY OF ARTS AND SCIENCES

MAJOR REQUIREMENTS

1. Completion of 24 credits in the Linguistic Department, not counting 80, 113, 114, 115 or 116 and normally including 150, 160, 173, 177, 178 and 179;
2. One year of college-level study of a foreign language;
3. Three more terms of language study;
4. As with all majors, completion of twelve credits in a related area.

COURSE DESCRIPTIONS

20 Introduction to the Study of Foreign Languages This course is designed for students who must take courses in a foreign language, but who have no previous experience with foreign languages or who have had bad experiences with foreign languages and who hate English grammar.

80 Aspects of Language Nothing characterizes human beings better than their ability to use language. One aim of this course is to introduce you to what languages are like, how they are used and how they change. Another aim is to show you some connections between linguistics and other fields: psychology, anthropology, sociology and computer science.

130 Introduction to Computational Linguistics In both Linguistics and Computer Science, we need to study languages and their grammar from a mathematical point of view. This course is an introduction to the mathematical theory of languages and its applications. The first half of the course will deal mainly with elements of the theory of automata and its relation to grammars. The second half will survey ways in which this theory can be applied to English grammar and to the design of programming languages. Prerequisite: 177 or 277, CpSc 48.

136 Foreign and Second Language Testing This course is designed to be more practical than theoretical, but essential testing theory and statistics will be covered. Prerequisite: 150.

138 Structure of English This course is a "nuts and bolts" description of the lexical and syntactic structures of English. An attempt will be made to provide students with a thorough grounding in traditional grammar, while presenting insights and explanations from a transformational-generative perspective.

140 Language and the Law This course will explore some of the ways in which linguistic science can shed light on the use and misuse of language in the legal system.

150 Introduction to Linguistics This course emphasizes the theory and methodology of the traditional central areas of the field -- phonetics, phonology, morphology and syntax -- with special concentration on phonological and syntactic theories and analytic techniques. Phonology and syntax will be covered in about three weeks each; the remainder of the course will be divided among phonetics (one week), morphology, historical linguistics (one week), semantics and pragmatics, sociolinguistics, psycholinguistics and the history of modern linguistics.

151 Languages of the world A survey of language classification, language structures and language contact. The course will concentrate on two main questions: How do languages differ from one another in sounds, forms and syntax? And what are some linguistic and sociopolitical results of situations in which two or more languages come into contact?

153 Pidgin and Creole Languages How do people talk to each other when they have an urgent need to communicate but do not share a common language? This is one of the most interesting questions about new contacts between people of different cultures, but it is rarely raised in historical studies of events that changed the cultural map of the world. In most cases, indigenous populations did not immediately learn the languages of European traders, colonists and slavemasters, because they lacked the need and/or the opportunity to do so.

157 Romani Language and Culture The Gypsies of Europe have been the subject of study for over 200 years by a small cadre of scholars whose work has not become well known. The purpose of this course will be to outline the history of Gypsies and their language, from their homeland in India over 2000 years ago to their present locations in Europe and the New World. Especial focus will be given to the language in its numerous varieties, folk tales and recent ethnographic literature.

160 Introduction to Historical Linguistics Major topics to be studied are the analysis of sound change, analogic change, contact-induced language change, the relationship between variation and language change.

163 Language and Cross-Cultural Communication This course is designed for those planning to work or live in a situation which serves as an interface between two or more cultural groups and for those who are interested in matters of language and culture. The curriculum deals with aspects of culture as they intersect with language, and specific topics include cultural differences in face-to-face interaction; nonverbal communication.

165 American Indian Languages An introduction to the peoples and history of the pre-Columbian New World through the medium of their languages.

166 Language and Prehistory in MesoAmerica Students will be required to familiarize themselves with archeological cultures -- names, places and dates -- and with languages -- isolates, groups, families and names.

167 Aspects of Sociolinguistics This course introduces the basic concepts in the field of sociolinguistics -- the study of the interaction of language and society. Topics covered are regional and social dialects, pidgins, creoles, Black English, diglossia, codeswitching, address systems, language attitudes, language maintenance and shift and language education.

173 Morphology This course provides training through problem-solving, in the analysis of morphological phenomena both in the syntax and in the lexicon, and in the separation of regular phonological processes from those that are grammatically conditioned.

177 Syntactic Theory This course is an introduction, stressing understanding of theoretical concepts, to the transformational-generative approach to English sentence structure. This approach uses formal rules to produce sentences and to explain how they are composed of phrases.

178 Phonetics and Phonemics Principles of articulatory phonetics, with emphasis on the presentation of a standard framework for describing speech sounds. Some discussion also of acoustic and experimental phonetics. Practice in the production, recognition, and transcription of sounds.

179 Phonology An introduction to the principles of phonological theory and phonological analysis. We will first study the roots of modern phonology in Prague School and American structuralist ("classical phonemic") theories and then investigate early and current trends in generative phonology. Generative phonology will be the main focus of the course. Throughout the course, problem sets will be assigned as homework and discussed during part of one class session each week. Prerequisite: 178.

182 Semantic Theory A survey course, designed to introduce students who have been exposed to linguistics, logic or philosophy of language to contemporary work in the theory of meaning. Prerequisite: 150 or 177 or a course in symbolic logic.

185 Mayan Language and Culture Introduction to the Mayan language and Mayan culture in the context of Mesoamerica. Folklore and ethnographic texts in two Mayan languages will be read, translated and analyzed for linguistic and cultural content. Information on grammar of languages used will be provided during class periods. Ethnographic and historical articles on Mayaland and associated areas will be read.

190 Operation of the Language Laboratory This course, designed especially for those involved in language teaching, provides an overview of language laboratory systems, operations, and procedures.

UNIVERSITY OF ROCHESTER
DEPT. OF FOR. LANG., LIT., AND LINGUISTICS.
COLLEGE OF ARTS AND SCIENCES

Linguistics offers students an opportunity to engage in the scientific and historical study of the complexities of sound, form, and meaning which distinguish human language. Questions of how languages are learned and how they are socially differentiated touch upon the concern of philosophers and social scientists. Majors in linguistics first receive basic training in general linguistic theory. Subsequently, they may concentrate in an advanced area, e.g., computational linguistics, psycholinguistics, sociolinguistics, or the description and history of specific languages.

MAJOR REQUIREMENTS

1. A minimum of eight courses above LIN 101 in linguistics is required. These include:
    a. Three from LIN 202, 203, 204, and 205.

    b. Two from LIN 212, 213, 214, 215, 216, 217, 218

    c. Three from the remaining 200-level courses.

2. Also required are four selected courses above the introductory level in an allied field: anthropology, education, English, foreign languages, mathematics, philosophy, or psychology.

3. The exact choice of courses within the concentration will depend on the student's main interest and will be worked out with the undergraduate adviser.

COURSE DESCRIPTIONS

101 Introduction to Linguistics Principles of structural analysis of speech phenomena. (This course is a prerequisite to all other LIN courses)

202 Syntax The study of models of grammatical structure, including current generative theories.

203 Phonology Critical analysis of approaches to phonological theory, American structuralism, generative theory, and natural phonology.

204 Semantics Analysis of language "deep structure"; delimitation of semantic fields and categories; studies of "case" functions.

205 Historical Linguistics Examination of language change through time and space.

212 Generative Grammar Comparison of current generative models of syntax. Prerequisite: 202.

213 Advanced Phonology A study of alternate theories of phonological components in generative models. Prerequisite: 203.

214 Semantic Theories A comparative analysis of the relationship between semantics and syntax in various linguistic theories. Prerequisite: 204.

215 Phonetics Physiological bases of speech production and perception.

216 Sociolinguistics The study of language in its social context as viewed by linguists.

217 Psycholinguistics This course is concerned with the psychological processes involved in language use.

218 Computational Linguistics Introductory survey of problems involved in constructing computer programs that "understand" natural language and the methods that have been developed to overcome these problems. Prerequisite: CSC 206, 240, LIN 101.

233 History of the English Language

234 History of the French Language

235 History of the German Language

236 History of the Russian Language

237 History of the Spanish Language

238 Introduction to Indo-European Linguistics A survey of Indo-European studies. Investigation of the development of the principal groups of the Indo-European languages.

240 Grammatical Analysis Morphological segmentation and classification; derivational and inflectional processes. Prerequisite: 203.

241 Speech, Language, and Hearing Survey of basic linguistics, audiology, and speech pathology.

242 Language Development Children's syntactic and semantic development of language, preverbal origins of communication.

243 Aesthetics and Language Focus on linguistic stylistics in the study of oral texts.

244 Psychology of Language This course is concerned with the psychological processes involved in language use.

245 Philosophy of Language A study of philosophical questions about language and the general nature of language.

246 Acoustic Phonetics Introduction to the physical and linguistic properties of the speech wave. Prerequisite: 215.

252 Language and Geography Systematic study of variations in language as they relate to geography.

254 Introduction to the Romance Languages Prerequisite: Knowledge of basic principles of linguistics or of a Romance language.

256 Hispanic Dialectology

261 The Structure of Modern English

263 The Linguistic Structure of French

264 The Linguistic Structure of German

265 The Linguistic Structure of Russian

266 The Linguistic Structure of Spanish

267 Application of Linguistics to the Teaching of Foreign Languages Principles of major linguistic approaches to language - descriptive, contrastive, generative-transformational.

UNIVERSITY OF SASKATCHEWAN
LINGUISTICS PROGRAM
DEPT. OF ANTHROPOLOGY
ARTS AND SCIENCES

"Linguist" has long been a name for one who speaks many languages. The descriptive linguist of today is a social scientist who studies the structures of various languages but who may not be able to speak more than one or two. Linguistics aims at providing concepts that will serve to describe all languages and which can be used to contrast languages in regard to sound system (phonology), rules for word formation (morphology) and rules for word combination (syntax). Knowledge of the structure of language is not the same as the ability to use the language. The latter is a cognitive and motor skill built up by a kind of practice that is not necessary to the comprehension of structure. The difference is rather like that between a knowledge of the theory of music and the ability to play the piano. For a man who speaks many languages polyglot is an unequivocal designation. For the student of language structure we will use the word "linguist." (Roger Brown in Words and Things).

MAJOR REQUIREMENTS

The requirements are that the courses listed under (a), (b), and (c) should be taken together with at least 6 credit units from (d) and 6 from either (e) or (f). For the four-year B.A. Advanced, students are required to take courses listed under (a), (b), and (c) and 18 additional credit units: 6 from each of (d), (e), and (f).

a. LIN 110.6;

b. ANTH 240.3 and 241.3;

c. ENG 289.3 and 292.3 or ANTH 242.3 and 243.3;

d. ENG 290.6, LIN 231.6;

e. ANTH 342.3, PSYCH 256.3 or ENG 292.3;

f. CHINESE 101.6, CREE 101.6, GREEK 101.6, HEBREW 101.6, LATIN 101.6, INUKTITUT 101.3 and 102.3, ENG 207.6, 208.6, 290.6, FRENCH 303.3, GERMAN 301.6, GREEK 310.3, LATIN 310.6, SLAVIC STUDIES 451.6.

Students should note that it is possible to major in linguistics either in Program Type A or B. However, students are reminded that the remaining requirements of either program must be fulfilled (e.g., courses such as ENG 110.6, PSYCH 110.6, etc., form part a major). Students wishing to major in Linguistics must consult the Administrative Committee.

COURSE DESCRIPTIONS

110.6 Introduction to Language This course deals with language as a part of human behavior and cultures, and with the various levels of structure in languages as they convey meanings.

231.6 Historical and Comparative Linguistics with Emphasis on Non-Germanic Languages A course designed to broaden and deepen the understanding of language through the application of historical and comparative methods in the study of phonological, grammatical and semantic systems from prehistoric to modern times. Prerequisite: One of LIN 110, ANTH 240, ENG 289 or 290, or any LANG course at 120-level.

ANTH 240.3 Principles of Phonology The basic concepts of phonology and the procedures of phonological analysis, with an emphasis on generative phonology. Prerequisite: ANTH 110 or 111, or LIN 110 or 6 credit units in a language other than ENG.

ANTH 241.3 Introduction to Grammar This course will present an advanced introduction to traditional structural, and transformational models of grammar. Prerequisite: ANTH 110 or 111 or LIN 110.

ANTH 242.3 Phonetics This course introduces articulatory phonetics, the structure and functioning of the vocal tract, the major classes of speech sounds and systems of phonetic notation. Prerequisite: ANTH 110 or 111 or LIN 110.

ANTH 243.3 Morphological Patterns in Language This course investigates the internal structure of words and the rules by which words are formed. Prerequisite: ANTH 110 or 111 or LIN 110.

ANTH 342.3 American Indian Languages Linguistic structures of native America, with special reference to the families of North America. Prerequisite: ANTH 110 or 111 or LIN 110.

CHINESE 101.6 Introduction to Chinese

CLASSICS 215.3 Classical Roots of English

CREE 101.6 Introduction to Cree

ENG 207.6 Introduction to Old Icelandic Language and Literature Prerequisite: ENG 110 or LIN 110 or a senior course in a language.

ENG 208.6 Introduction to Old English Language and Literature Prerequisite: ENG 110 or LIN 110.

ENG 289.3 English Structural Linguistics Prerequisite: ENG 110 or LIN 110.

ENG 290.6 An Introduction to English Linguistics and the History of the English Language Prerequisite: ENG 110 or LIN 110.

ENG 292.3 The Semantics of English Prerequisite: ENG 110 or LIn 110.

FRENCH 303.3 History of the French Language

GREEK 101.6 Introduction to Greek

GREEK 310.3 History of the Greek Language

HEBREW 101.6 Introduction to Hebrew

ESKIMO 101.3/102.3 Introduction to Inuktitut

LATIN 101.6 Introduction to Latin

LATIN 311.3 History of the Latin Language

PSY 256.3 Psycholinguistics A course concerned with: (1) the psychological implications of modern theories of grammar with special reference to the acquisition of language by children and (2) applied psycholinguistics (mainly speech disorders, the acquisitions of reading skills and the nature of reading disabilities).

UNIVERSITY OF SOUTHERN CALIFORNIA
LINGUISTICS DEPARTMENT
COLLEGE OF LETTERS ARTS AND SCIENCES

Linguistics is a scientific study of language. It examines how languages are similar and different, and the universals found in all of them; it considers how language is learned, how it changes through time, how it varies with social and economic class and the differences between speaking and writing, language and education. The study of linguistics develops the ability to analyze and work with formal systems, not unlike those found in mathematics and computer science. It also addresses social and educational problems, such as language teaching, language disorders and language and the law.

The Linguistics Department at USC emphasizes the study of language in context. In particular, in addition to introductory linguistics, students take courses in both sociolinguistics (language and society) and psycholinguistics (either both first and second language acquisition). The major in linguistics at USC focuses on how similar communication goals are met by diverse means in the languages of the world. We encourage students to pursue dual majors in anthropology, sociology, philosophy or a foreign language.

The department is particularly strong in three areas: formal linguistics, which is the study of syntax, morphology and phonology (sound systems and grammar); language in social context, which is the study of language, society and culture and first language acquisition; and second language acquisition, which is the study if language acquisition in a foreign or second language.

MAJOR REQUIREMENTS

210g, 301/302, a course in psycholinguistics (395 or 396), or a course in the analysis of an individual language (406, 480, 485) also met by a linguistics course in a foreign language or by two courses in a non-Indo- European language (but in addition to the LAS language requirement); a three-course sequence of upper division in linguistics or a related field to be chosen in consultation with the department adviser.

COURSE DESCRIPTIONS

100 Language and Mind Analysis of linguistic relativity; the relationship between language structures, culture, and perception; general semantics; linguistic norms. Field work.

120/150/220 Swahili I,II,III Basic structure of Swahili; development of speaking and reading skills.

121/151/221 Persian I,II,III Basic structure of Persian; development of speaking and reading skills. Not available to students who are native speakers of Persian.

122/152/222/252 Arabic I,II,III,IV Introduction to current Arabic; oral practice, hearing and reading comprehension; the grammar necessary for simple spoken and written expression. Lecture, classroom drill, laboratory practice.

201 Semantics Signs and symbols in language and communications; the nature of word and sentence meaning; correctness and appropriateness in language use; ambiguity and semantic change.

210 Introduction to Linguistics Empirical study of the sounds and structures of human language; syntax and semantics; language change; linguistic universals.

315g Language, Society, and Culture Interrelationships of language and culture; the patterned covariation between language and society; social meaning; conversational analysis.

301/302 Linguistic Analysis 301 Phonetics, phonology, morphology. Prerequisite: 210g. 302 Syntax, semantics, language change. Prerequisite: 310a.

335 Language, Symbolic Systems, and the Natural Sciences Application of methods developed in the natural sciences in the study of "natural" languages, which form a small subset of possible symbolic systems.

375 Sociolinguistics Linguistic and cultural pluralism in the United States; distributional and structural characteristics of selected urban and minority dialects; the relationship between dialects and "media standard."

385 Anthropological Linguistics Topics in ethnolinguistics; ethnographic semantics, ethnomethodology, ethnography of communication, componential analysis; language evolution; linguistic relativity.

390 Special Problem

395g Child Language Acquisition Universal characteristics of child language; stages of acquisition of phonology, syntax, semantics; processes and dimensions of development; psychological mechanisms; communicative styles.

396 Second Language Acquisition Theories of second language acquisition in children and adults; comparison of first and second language acquisition including psychological, social, and individual factors. Prerequisite: 210.

406 Linguistic Analysis of English Formal and semantic properties of major structure in the English language.

411 Linguistics and Education Practical classroom approaches to children's language; relationships between writing, reading, and speaking; social and regional dialects; traditional, structural, and generative-transformational grammars.

412 Linguistic Interpretation of the Law Principles of semantics; analysis of speech acts including informing, promising, threatening, warning; linguistic analysis of consumer contracts and advertisements; readability studies.

415 Phonetics Principles of articulatory and acoustic phonetics. Prerequisite: 210.

450 Black American English A description and analysis of the dialect of American English spoken by Black Americans, emphasizing the relationship between language and culture; educational implications.

465 Arabic Linguistics and Sociolinguistics General aspects of the phonology, syntax, and semantics of modern Arabic; historical background of Semitic languages and the relationship between languages and culture. Prerequisite: 210.

466 Word and Phrase Origins Introduction to historical-comparative word study; history of ideas concerning language relationships; types of semantic change; hidden metaphors in English word-stock.

475 Studies in Bilingualism The psycholinguistic aspects of bilingualism and bidialectism among ethnic and racial minorities. The relationship between linguistics and cultural pluralism in America.

480 Linguistic Structure Analysis of phonological and grammatical structure of an individual language.

485 Field Methodology Elicitation techniques and methodological principles; recording and analysis of phonological, syntactic and semantic structures; practical approaches to procedures used in urban, rural and "primitive" settings. Prerequisite: 301a,b.

499 Special Topics Investigation of selected topics in linguistics; e.g., Pidgins and Creoles, acoustic-phonetics, animal communications and discourse.

UNIVERSITY OF SOUTH FLORIDA
LINGUISTICS PROGRAM
DIVISION OF LANGUAGES
COLLEGE OF ARTS AND LETTERS

Linguistics is primarily an upper-level and graduate discipline with strong interdisciplinary concerns. Although no baccalaureate degree is offered, the minor in linguistics may provide a broader educational experience for students majoring in adjacent arts and sciences such as Anthropology, Communication, Communicology, English, Foreign Languages, Philosophy, Psychology, Sociology, and others.

MINOR REQUIREMENTS

The minor in Linguistics requires a minimum of 18 semester hours as follows: LIN 3010 (3), 4377 (3)

Plus a minimum of 12 semester hours from the following: ANT 3610 (3), LIN 3801 (2), LIN 4040 (3), LIN 4701 (3), LIN 4710 (3), PHI 3100 (4), SPC 3210 (3).

COURSE DESCRIPTIONS

3010 Introduction to Linguistics Introduction to the basic principles of linguistic science; phonological and grammatical analysis and description; language change and genetic relationships.

3801 Language and Meaning A survey introduction for non-specialists to the basic principles of semantics and the way language conveys ideas. This course is available only on WUSF/TV Channel 16 by the O.U. Program.

4040 Descriptive Linguistics Introduction to the basic techniques of formalizing linguistic descriptions through elementary phonological, morphological, and syntactic data solution-problems drawn from a variety of languages. Prerequisite: LIN 3010.

4377 Language Types of the World An introduction to linguistic typology consisting in a systematic comparison of characteristic representatives of the various language types.

4600 Language and Society An analysis of the interrelation of a language and the structure of the society using it. The linguistic behavior patterns characteristic of particular social, political, economic, educational, and racial groups. Prerequisite: LIN 3010.

4701 Psycholinguistics The nature of linguistic structure and its correlates in behavior and perception. Prerequisite: LIN 3010.

4710 Language and Communication: Acquisition and Development A survey of current research and theory in the processes of normal acquisition and development of language and communication in children. Prerequisite: LIN 3010.

ESL 1383 English for Foreign Students I

ESL 1384 English for Foreign Students II Prerequisite: ESL 1383.

ANT 3610 Anthropological Linguistics The comparative study of language in its cultural context, especially emphasizing the role of language in the cultural interpretation of physical and social reality. Prerequisite: ANT 2000.

SPC 3210 Communication Theory The study of source, message, and receiver variables in human communications; communication settings; descriptive and predictive models of communication; speech communication as a process. Prerequisite: junior standing or CI.

UNIVERSITY OF TEXAS AT AUSTIN
LINGUISTICS DEPARTMENT
COLLEGE OF LIBERAL ARTS

The Bachelor of Arts in Linguistics must be viewed as a broad-based introduction to man's language capacity. That knowledge should provide students with the ability to cope with a wide range of language-related situations. It does not provide specialized training for which jobs will be available. Since linguistics is a relatively new field, students must expect to take the initiative in demonstrating their special abilities to prospective employers.

General linguistics training could be useful in any private or government position which might require language skills. When linguistics training is combined with supplementary training in psychology, special education, audiology, etc. there is the possibility of applied linguistic work in various clinics and public education programs. A linguistics background is useful for work in the Peace Corps and as an instructor of English for foreign students.

MAJOR REQUIREMENTS

306, 344K, 345, 360K, 372K (or 379H when the topic is phonology), 372L (or 379H when the topic is syntax) and six additional hours of upper division linguistics. Students should consult the departmental undergraduate adviser for information concerning the counting of other courses toward the major requirements.

FIRST MINOR

Twelve semester hours, at least six of which must be upper-division, in any single related subject in the colleges of Business Administration, Communication, Education, Liberal Arts, or Natural Sciences.

SECOND MINOR

Two semesters of a non-Western language other than the language used to absolve the Area A foreign language requirement.

COURSE DESCRIPTIONS

Lower Division Courses

306 Introduction to the Study of Language Survey of major areas of linguistics: sound systems, grammatical structures, historical development of languages, language families and linguistic universals, dialectic differences and their social significance.

310 Problems in Language The nontechnical study of language in its relation to other fields such as literature, philosophy, sociology, psychology and religion. Prerequisite: Nine hours of English, or six hours of English and three hours of a social science.

315/Spch 315S Speech Science Physiological and acoustical basis of speech production; theories of motor control of speech; laboratory techniques in speech science research.

Upper Division Courses

320K Introduction to Linguistic Science: Descriptive Linguistics The study of languages as grammatical systems; phonology, morphology, syntax and semantics; social variation, language acquisition and other topics.

321L/Eng 321L American English Prerequisite: Eng 316K.

322 Gypsy Language and Culture Linguistic introduction to Romani; relationship to languages of India; history from 280 BC; modern dialects and international standard language; history and culture as reflected in language. Prerequisite: 306.

323L/Eng 323L English as a World Language Prerequisite: Eng 316K.

325 Black English Black American English; evolution, contemporary styles, comparison with other ethnic dialects, attitudes toward Black English, effects in education, controversy about dialect differences and intellectual abilities. Prerequisite: 306.

340 Automata Theory Introduction to the formal study of automata and of related formal languages. Prerequisite: CS 336.

344K Phonetics and Phonology Articulation and transcription of speech sounds; distinctive feature systems; physiological and acoustical aspects of phonetics; and common phonological processes. Prerequisite: 306.

345 Historical Linguistics An introduction to the study of language change. Prerequisite: 344K.

350 Special Topics in the Study of Language May be repeated for credit when the topics vary. Nontechnical examination of social, educational and political problems in which current linguistic knowledge is relevant.

360K Introduction to English Grammar

364M/Eng 364M History of the English Language Prerequisite: Eng 316K.

372K Phonological Analysis Methods and principles of analyzing the sound systems of languages. Prerequisite: 344K.

372L Grammatical Analysis Methods and principles of describing the syntactic systems of languages. Prerequisite: 360K.

372M Logical Foundations of Linguistics Introduction to mathematical linguistics; set theory, symbolic logic, relations, functions, orders, operations, mathematical configurations, elements of automata theory, properties of formal languages.

373 _Topics in Linguistics and Related Disciplines_ Introduction to the study of those areas of linguistics which involve other disciplines; e.g., sociolinguistics, psycholinguistics, mathematical methods in linguistics. Prerequisite: 306.

374 _Language and Culture_ May be repeated for credit when the topics vary. The study of language structures in their cultural and geographical context.

UNIVERSITY OF TEXAS AT EL PASO
LINGUISTICS DEPARTMENT
COLLEGE OF LIBERAL ARTS

MAJOR REQUIREMENTS

Linguistics 3210, 3220, plus 21 semester hours in Linguistics courses at the 300-400 level.

MINOR REQUIREMENTS

Linguistics 3220 plus 15 semester hours in Linguistics courses, nine hours of which must be at the 300-400 level.

COURSE DESCRIPTIONS

4103/4104 Intensive Language Study

3210 Phonetics and Phonemics The study of speech sounds with emphasis on their articulation and transcription, and constant attention to the phonemic principle.

3220 An Introduction to Linguistics Introduction to basic concepts and techniques of modern linguistics.

3222 Latin and Greek Elements in English

3307 The Structure of English

1308 Practicum in Teaching English to Speakers of Other Languages

3309 The Structure of Spanish Prerequisite: 3202.

3313 English Historical Linguistics The development of English from its beginnings to Modern English. A study of the changes in the phonological, morphological and syntactical systems. Prerequisite: 6 hrs of sophomore ENG or LIN 3220.

3315 History of the Spanish Language Prerequisite: SPAN 3202 or 3204.

3344 Making and Using Language Tests The study of how language tests of various kinds are produced, used and evaluated.

3354 Field Methods in Linguistics

3357 Sociolinguistics Language variables and sociological correlates, a review of current research, theories and applications.

3401 Methods of Foreign Language Instruction Prerequisite: Completion of course 3202 or the equivalent in a foreign language.

3440 Child Language Acquisition and Development The universal characteristics of child language and the implications for fostering the growth of linguistic competence.

3448 Analyses of Second Language Acquisition

3454 Psycholinguistics A study of the psychological factors in language behavior, including attention to theories of language learning.

3471 Studies in Linguistics

3472 Contrastive Linguistics: Spanish/English The contrastive study of the phonological, morphological and syntactical systems of Spanish and English. Prerequisite: SPAN 3202 or 3204.

3473 The Spanish Language in the Americas Prerequisite: 6 hrs of advanced SPAN or LIN.

3480 Language Universals A study of universal and quasi-universal features of linguistic structures. Prerequisite: 6 hrs of 3300-3400 LIN courses.

3481 Translation into English Prerequisite: SPAN 3359.

3482 Translation into Spanish Prerequisite: SPAN 3359.

3490 Studies in Spanish Prerequisite: 6 hrs of advanced Spanish.

3492 Professional Translation Prerequisite: 3481 or 3482.

ESOL COURSES

5110 Intermediate English for Speakers of Other Languages Must be taken concurrently with 3104 or ENG 3001.

3111 Expository English Composition for Speakers of EFL Prerequisite: ESOL 5510 and 3160.

2111 Laboratory Must be taken with 3111.

3112 Research and Critical Writing for Speakers of EFL Prerequisite: ESOL 3111, 2111.

2112 Laboratory Advanced. Prerequisite: 2111, 3111; must be taken with 3112.

3104 Speech for Non-Native Speakers of English

3160 Basic English Sentence Structure

3201 English for Science and Technology Prerequisite: 3112.

3202 English for Business, Finance and Economics Prerequisite: 3112.

3203 English for Humanities and Social Sciences Prerequisite: ESOL 3112.

UNIVERSITY OF TOLEDO
LINGUISTICS PROGRAM
ARTS AND SCIENCES

The human capacity for language is what makes us unique among the animals. Many animals have communication systems. Yet human beings, as far as we know, are the only creatures who can express a limitless number of ideas in sound. The aim of modern linguistics is to understand the principles that enable us to perform this feat. Thus, linguistics is not the study of particular languages, as its name misleadingly implies. Rather, it is the study of the nature of language itself.

Even though linguistics has traditionally been considered a graduate program of study, The University of Toledo has recognized the need for an undergraduate program leading to a B.A. in linguistics. Our program, which is administered by the Linguistics Committee in the College of Arts and Sciences, is interdisciplinary in nature. This allows students the flexibility to combine linguistics with other disciplines depending on their interests and career plans.

MAJOR REQUIREMENTS

A major of 44 hours in linguistics must include the following:

a. LIN/ENG 315, LIN 316, 317, 318

b. One course in historical linguistics chosen from LIN/ENG 410, FREN/SPAN 404, SPAN 407, or with adviser's approval from courses in historical linguistics offered as FREN, GER, or SPAN 491.

c. One course in the structure of a language chosen from LIN/ENG 413, SPAN 411, 412, or LIN 490, 491.

d. Three courses chosen from LIN/ENG 415, LIN 416, ANTH 280, PHIL 406, PSYCH 481, or SOC 487.

e. To complete the major requirements a student may, in addition to courses from the above list, elect courses from the following: LIN/ENG 411, 412, FREN 431, 432, 433, LATIN 475, or linguistically oriented readings courses in LIN/ENG 499, ANTH 491, PSYCH 496, and SOC 491. In addition, a linguistics major must take 27 hours of courses related to linguistics.

COURSE DESCRIPTIONS

315 Introduction to Linguistics An introduction to modern linguistic theories about the nature and structure of language with emphasis on English.

316 Grammatical Description I: Phonology The study of speech sounds including basic phonetics and a comparison of theories of phonological description. Prerequisite: LIN 315 or ENG 315.

317 Grammatical Description II: Syntactic Analysis Introduction to syntax and semantics with comparison of traditional, structural, and transformational approaches. Prerequisite: LIN 315 or ENG 315.

318 Grammatical Description III: Morphology The theory of how morphemes combine to form structurally complex words: word formation rules, the relationship between word structure and how words sound, and the structure of the mental lexicons. Prerequisite: LIN 315 or 316.

410 The History of English

411 Old English

412 Middle English

413 American Dialects

415 Applied Linguistics The application of linguistics to understanding literature and to language teaching, with special emphasis on reading and writing. Prerequisite: 315.

416 The Representation of Language in the Brain An investigation of the various sorts of linguistic deficits which result in brain damage; what this can tell us about how language is represented in the brain.

490 Descriptive Analysis of the Structure of an Indo-European Language Prerequisite: 315, 316, 317.

491 Descriptive Analysis of the Structure of a Non-Indo-European Language Prerequisite: 315, 316, 317.

UNIVERSITY OF TORONTO
LINGUISTICS DEPARTMENT
ARTS AND SCIENCES

Linguistics can trace its roots back to the ancient Sanskrit grammarians, and the study of language is probably as old as language itself. However, the twentieth century has produced an explosion in the scientific study of language. As our understanding of the nature and structure of human language develops, linguistics is becoming relevant to many other areas of research such as Artificial Intelligence, Speech Pathology, Audiology, Psychology, and Philosophy.

On its own, linguistics represents an invaluable key to the nature of the mind and the diverse elements of human culture; as a tool, linguistics is unmatched in preparing one for the learning and teaching of languages and for integrating language technology.

The Department offers Programs in Linguistics, as well as combined programs with French, German, Mathematics, Philosophy, and Sociology.

LINGUISTICS B.A.

SPECIALIST PROGRAM: (12 COURSES)

First Year: LIN 100Y/130Y

Second Year: LIN 228H, 229H, 232H

Second, Third and Fourth Years: JAL 445H, LIN 342H, 345H, 347H; five 200+ series JAL/JLM/JLP/LIN courses or CSC 485H; two years of study or its equivalent of one non-Germanic, non-Romance language in courses using spoken language (Courses must be approved by Undergraduate Secretary)

MAJOR PROGRAM (6 COURSES)

First Year: LIN 100Y/130Y

Second Year: LIN 228H, 229H, 231H, 232H

Third Year: 3 courses in LIN/JAL/JLM/JLP, excluding LIN 110Y, 233H and 261Y

NOTE: For concentration in areas such as Sociolinguistics, Psycholinguistics, etc., consult the Undergraduate Secretary.

LINGUISTICS AND LANG. OTHER THAN ENGLISH B.A. (13 OR 14 COURSES)

Consult the Department of Linguistics and of the Language chosen.

SPECIALIST PROGRAM

The Linguistics component of all these Programs is as follows:

First Year: LIN 100Y/130Y

Second Year: LIN 228H, 229H, 231H, 232H

Third and Fourth Years: 4 additional JAL/JLM/JLP/LIN courses (excluding LIN 100Y). (LIN 348H specially recommended)

6 or 7 courses are required in the language chosen. Consult the Departments of French, German, Italian, Spanish, and Slavic languages.

LINGUISTICS AND PHILOSOPHY B.A.

Consult the Departments of Philosophy and Linguistics.

SPECIALIST PROGRAM (14 COURSES)

First Year: LIN 100Y/130Y

Second Year: LIN 228H, 229H, 231H, 232H

Third and Fourth Years: 4 additional JAL/JLM/JLP/LIN courses (excluding LIN 110Y). (LIN 342H, 345H specially recommended)

PHILOSOPHY:

7 courses, including 1 course in logic, 1 in philosophy of language, 1 in the history of philosophy; at least 3 courses at the 300/400 level.

MATHEMATICAL LINGUISTICS B.A.

Consult the Department of Mathematics.

SPECIALIST PROGRAM (13 COURSES)

First Year: LIN 100Y/130Y

Higher Years:

1. LIN 228H, 229H, 231H, 232H, 342H, 345H, JLM 349H, 359H
2. MAT (139Y, 225Y)/(140Y, 150Y), 239Y, STA 262Y/352Y
3. Two 300-level JAL/JLP/LIN courses
4. Two 300-level CSC/MAT/STA courses

MINOR PROGRAM

LIN 100Y/130Y and 2 other courses in JAL/JLM/JLP/LIN (excluding LIN 110Y and 261Y).

COURSE DESCRIPTIONS

110Y Introduction to Language A general-interest course on language. How language changes over time, with special reference to the history of English.

130Y Introduction to General Linguistics (Formerly 100Y) Lectures on fundamental principles. Practice in production and recognition of speech sounds, and elementary analytic techniques.

228H Phonetics Investigation of the sounds most commonly used in languages from an articulatory and acoustic point of view.

229H Sound Patterns in Language The nature and organization of phonological systems, with practical work in analysis. Prerequisite: 130Y, 228H.

231H Morphological Patterns in Language The nature and organization of morphological systems. Prerequisite: 130Y.

232H Syntactic Patterns in Language The nature and organization of syntactic systems; their relation to semantic systems and the linguistic organization of discourse. Prerequisite: 130Y.

233H Canadian English

JAL 252Y Sociolinguistics The use of language from social perspectives; dialects and standard languages; speech styles; argots, substandard, and other varieties. Prerequisite: 130Y.

JLM 259H Research Design and Statistics for Linguists The basic concepts of research design as applied to gathering linguistic data and experimental design. Prerequisite: 130Y.

261Y General Principles of Sanskrit Grammar An introduction to Sanskrit grammar. Phonetics, orthography, parts of speech, and selected noun and verb morphology.

JLP 315H Language Acquisition Infants' abilities at birth, prelinguistic development, the first words, phonological, syntactic and semantic development. Prerequisite: One full course at the 200-level in JAL/LIN/PSY/PSL/STA.

310H Introduction to Cognitive Linguistics Articulation of speech sounds, morphology, syntax, structure of the lexicon, slips of the tongue, choice of vocabulary and sentence form when speaking. Prerequisite: 231H, 232H/JLP 315H/374H/CSC 238H.

331H Experimental Phonetics Introduction to instrumental techniques for the study of the physical parameters of speech: acoustic measurements of the parameters; their linguistic function. Prerequisite: 228H.

333Y Structure of English Prerequisite: 130Y.

342H Introduction to Syntactic Theory An introduction to the foundations and the formal framework of transformational-generative theory. Prerequisite: 130Y, 345H.

345H Introduction to Analysis and Argumentation The nature of phonological and syntactic argumentation, practice in constructing and evaluating hypotheses. Prerequisite: 231H, 232H.

347H Phonological Theory Basic issues in current phonological theory. Prerequisite: 229H, 345H.

348H Language History A survey of methods of dealing with language change. The comparative method, internal reconstruction, linguistic geography, the origin and decline of languages. Prerequisite: 229H.

JLM 349H Introduction to Mathematical Linguistics The application of Mathematics to Linguistics: combinations of language, generative grammars, probabilistic models in historical linguistics and in text generation. Prerequisite: 130Y, MAT 140Y, 150Y or MAT 234Y, 235Y, 239Y.

352Y Language Spread Language spread and its consequences, including the relationship of language to ethnic group identity. Prerequisite: 130Y,

JLM 359H Logic for Linguists The basic concepts of logic as it pertains to linguistic theory: naive set theory, propositional and predicate logic, model and tense logic, and categorical grammar. Prerequisite: 130Y.

361Y Further Principles of Sanskrit Grammar Tenses, moods, conjugations, and declensions, etc. Prerequisite: 261Y.

371Y Dialectology Regional and social varieties in language, including critical studies of the history, methods and results of urban sociolinguistics and rural dialect geography. Corequisite: 345H, 347H.

JLP 374H Psychology of Language Human and other animal communication, structure of human language, word meaning and semantic memory, psychological studies of syntax, language and thought. Prerequisite: One full course at the 200-level in JAL/LIN/PSY/PSL/STA.

403H Topics in Phonological Theory Prerequisite: 347H.

404H Issues in Phonological Theory Prerequisite: 403H.

407H Advanced Syntactic Theory Prerequisite: 342H.

408H Topics in Syntactic Theory Prerequisite: 407H.

JAL 423Y Language Typology A number of languages will be examined to show what is universal in linguistic structures and what is peculiar to the languages of Western Europe. Prerequisite: 130Y.

JAL 445H Introduction to Field Linguistics Practice in language analysis based on elicited data from a native speaker of a foreign language. Prerequisite: 229H.

471H Language Variation Explorations of gradient categories and their encoding in languages, including fuzzy sets, folk taxonomies, hedges, lexical diffusion, and squishes. Prerequisite: 345H.

UNIVERSITY OF UTAH
LINGUISTICS PROGRAM
COLLEGE OF HUMANITIES

In linguistics, one studies languages not to read, write or speak them but to understand how they work, how they change, how they are learned by children and adults, and how they are used. The Bachelor of Arts in linguistics allows the student to pursue course work in a variety of areas, including general and theoretical linguistics, structures, histories and dialects of particular languages, sociolinguistics, psycholinguistics anthropological linguistics and applied linguistics.

MAJOR REQUIREMENTS

Linguistics 120 and either 532 or 540 are required of all majors, as are three 300-level classes; Linguistics 500 and 501 are recommended for those who plan to continue in the field beyond the BA the remaining major hours are determined by the student's areas of interest. Majors should consult with the undergraduate adviser.

MINOR REQUIREMENTS

The minor in linguistics involves 25 hours of course work:

1. 120;
2. Two courses from 310, 311, 312, 319, 342, 343, 344, 345, 346, 347;
3. Any two 500-level courses.

TESOL CERTIFICATE

A certificate in Teaching English to Speakers of Other Languages (TESOL) is offered in cooperation with the Department of English.

COURSE DESCRIPTIONS

120/ANTHR 120/ENGL 120 Introduction to the Study of Language

310/ENGL 310 Language History

311 Morphology

312 Semantics

319/PSYCH 319 The Psychology of Language

341/ENGL 341 Historical introduction to the English Language

342/ENGL 342 The American Language

343/ANTHR 343/ETHNC 343 Peoples and Languages of Ancient America A nontechnical introduction to the great cultures of the pre-Columbian world: Aztec, Mayan and Inca. The impact these cultures and languages have had on contemporary Latin America emphasized.

344/ANTHR 344 Writing: Its History and Use

345/ENGL 345 Nonstandard Varieties of English

346/ANTHR 346/ENGL 346 Language in Society

347/ANTHR 347/ENGL 347 Language and Culture

350 Writing Practicum

500 Introduction to Analytic Techniques: Phonetics and Phonology Prerequisite: 120.

501 Introduction to Analytic Techniques: Syntax and Lexicon Prerequisite: 120.

505 Linguistic Structure of a Selected Language Prerequisite: 501.

519/PSYCH 519 Psycholinguistics

521 North American Indian Languages Prerequisite: 120 or 501.

522 Anthropological Linguistics

524/PSYCH 524 Developmental Psycholinguistics

532/ENGL 532 English Transformational Syntax

533/ENGL 533 Grammar for Teachers of ESL

534/ENGL 534 Bilingualism

535/ENGL 535 English as a Second Language: Methods

536/ENGL 536 English as a Second Language: Practicum

537/ENGL 537 Special Topics in English

538/ENGL 538 Sociolinguistics Prerequisite: 500.

540/SPAN 540 Linguistics and the Structure of Spanish

541/SPAN 541 Developments in Spanish Syntax

542/SPAN 542 Spanish Dialectology

543/SPAN Iberian Romance Languages

580/SPAN History of the Spanish Language

581, 582, 583 Special Topics in Linguistics

UNIVERSITY OF VICTORIA
LINGUISTICS DEPARTMENT
FACULTY OF ARTS AND SCIENCE

LINGUISTICS B.A.

MAJOR REQUIREMENTS

210A and 210B, 250, 251, and 15 units of senior courses in LIN including at least 3 units from LIN 410A, 410B, or 410C, 440, and 441.

APPLIED LINGUISTICS B.A. (EMPHASIS ON TEACHING ESL)

MAJOR REQUIREMENTS

First and Second Years:

Required courses: 210A and 210B, 250, 251; 41/2 units of first and second year English courses including ENG 115 or 215; PSY 100. Six units in a second language of which three units should normally be at the second year level.

Third and Fourth Years:

Required courses: 374, 375, 376, 388 or 389, 410A, 440; and 6 units selected from 369, 370, 373, 378, 386, 390, 392 or 393, 395 (15 units). 376 will normally be taken in the final year of study.

Corequisite courses: Three units selected from upper-level English or Creative Writing in consultation with the Department.

Recommended Electives: Three units selected from Education-B 342, 343, 360, 361, 435.

LINGUISTICS B.S.

MAJOR REQUIREMENTS

First and Second Years:

Required Courses: 210A and 210B, 250, 251; BIO 150 or 207 and PE 141; MAT 100 and 101 (or 102 and 151 with permission of the Department); 3 units from PHY 100, 102, 110, 120, 220; PSY 100 and 201.

Recommended Electives: CSC 100, 110, 115; PE 241A and 241B (prerequisite: 141); PHY 214; PSY 215A or 215B, 235; course(s) in a second language.

Third and Fourth Years:

Required Courses: 369, 370, 380, 381, 382, 383; three units selected from 410A, 410B, or 410C, 440, 441, and three additional units of LIN courses numbered upwards of 300, selected from the B.S. list in consultation with the Department (15 units).

Corequisite Courses: PSY 300A and 41/2 units selected from PSY 300B, 313, 315, 317, 335 or 337, 371, 415.

COURSE DESCRIPTIONS

100A Introduction to Linguistics I An introduction to the subject matter of language and linguistics. Topics studied will include the nature of language through an overview of sound systems.

100B Introduction to Linguistics II A more detailed examination of topics covered in 100A as applied to the study of language in society, and language and mind. Prerequisite: 100A.

101 Introduction to Linguistics (in French)

201 Salish I Introduction to a major native language of British Columbia.

202 Salish II Prerequisite: 201.

210A Morphology and Syntax Techniques and theory in the analysis of words and sentences, utilizing data from a wide variety of languages.

210B Morphology and Syntax II An introduction to formal theories of syntax and lexicon. Prerequisite: 210A.

250 Phonetics An investigation of the production and nature of speech sounds commonly occurring in languages of the world.

251 Phonology The course deals with the overall organization and function of sound systems, with an investigation of their variety and of the universal features which unite them. Prerequisite: 250.

260 Introduction to the Japanese Language and Linguistics

340 Introduction to the Slavic Languages Prerequisite: One LIN course.

341 Seminar in a Slavic Language: Structure and History Prerequisite: One LIN course.

360 General Linguistics An introductory course intended for senior students with no previous training in the subject.

361 Anthropological Linguistics Language in relation to culture, semantics, and as an ethnographic tool. Prerequisite: One ANTH course.

364 Languages in the Pacific Area

365 Seminar on a Pacific Area Language: Structure, Context and Usage Prerequisite: 100 or 101 or 364.

369 Developmental Psycholinguistics Covers the biological bases of language, the child's stage by stage acquisition of the phonology, morphology, syntax, and semantics of the first language. Prerequisite: One LIN course and PSY 100.

370 Psycholinguistics The psychology of language covering such topics as the nature and function of language, the relationship of language and cognition. Prerequisite: One LIN course or PSY 100.

372 Native Languages of British Columbia Prerequisite: one LIN course.

373 Applied Psycholinguistic Techniques of Language Learning and Teaching

374 Applied Linguistics Explores and demonstrates the relevance of theoretical linguistics, psycholinguistics and sociolinguistics. Prerequisite: One LIN course.

375 Techniques in Applied Linguistics Prerequisite: 374.

376 Seminar and Practicum in Applied Linguistics Pre- or Corequisite: 374 and 375.

378 Contrastive Linguistics An introduction to the contrastive study of languages with respect to their phonological, morphological, syntactic and semantic systems. Prerequisite: One LIN course.

380 Acoustic Phonetics A study of the acoustical properties of speech sounds including the basic physical principles involved in the generation and propagation of sound energy. Prerequisite: 250.

381 Physiology of Speech Production A study of the physiology of the human speech mechanisms including the relevant aspects of the respiratory, laryngeal and supralaryngeal systems. Prerequisite: 250.

382 Experimental Phonetics Prerequisite: 380.

383 Auditory Phonetics A study in the perception of speech sounds in terms of the physiology of the organs of hearing with attention focused on the hearing mechanism as a transducer of acoustical energy to neural impulses.

386 Prosodic Features of English Prerequisite: 250, 251.

388 An Introduction to the Grammar of English Usage

389 An Advanced Grammar of English Usage Prerequisite: 388.

390 The Growth of Modern English Prerequisite: One LIN course.

392 Canadian English

393 Dialectology Dialect geography and its methodology. Prerequisite: One LIN course.

395 Sociolinguistics A study of language in its social context. Attention paid to linguistic, dialectical, and stylistic variation in speech communities and the relationship to such considerations as sex, class, and ethnicity. Prerequisite: One LIN course.

408 Advanced Morphology Prerequisite: 210B and 251.

410A Syntax Major syntactic structures of English will be analyzed in the government and Binding model. Prerequisite: 210B and 251.

410B Theories of Grammar Nontransformational formal model of syntactic description. Prerequisite: 410A.

410C Mathematical Linguistics Topics include: formal logic, set theory, recursive functions, formal languages, and formal properties of natural language. Prerequisite: 210B.

420 Comparative Indo-European Prerequisite: 210B and 251.

425 Historical and Comparative Linguistics An investigation of language change through time. Prerequisite: 210B and 251.

426 Semantics Meaning and its relationship to language. Prerequisite; 210B.

440 Generative Phonology of English Prerequisite:251.

441 Advanced Phonological Analysis Prerequisite: 440.

482 Computational Linguistics: An Introduction Introduction to the applications of the computer to linguistic problems.

483 Computational Linguistics: Quantitative Methods The application of the computer to the analysis of linguistic data in such areas as phonetics and dialectology. Prerequisite: 482.

484 Computational Linguistics: Grammars The application of computing methods to contemporary theories of natural language. Prerequisite: 210B and 481 or 482.

485 Computational Linguistics: Phonotactics The application of phonetic and phonological theory to computerized speech synthesis and recognition. Prerequisite: 382, and 481 or 482.

UNIVERSITY OF VIRGINIA
LINGUISTICS PROGRAM
ARTS AND SCIENCE

The Interdepartmental Major in Linguistics permits a student to explore both the independent and the interdisciplinary aspects of the study of human language. Courses give attention to historical as well as synchronic analysis, and provide background in several modern approaches to data. There are also courses which treat the relationship of language to culture and society, and others which treat the psychology of languages.

MAJOR REQUIREMENTS

The major program consists of 30 credits. The following courses, yielding 12 credits, are required of all majors: LIN 325, 502, 501; or ANTH 542; and LIN 505, 506, or ANTH 548. The remaining 18 credits are elective, and chosen in consultation with an adviser.

MINOR REQUIREMENTS

The minor is the same as the major with respect to required courses. Two electives are required in addition, for a total of 18 credits.

COURSE DESCRIPTIONS

225 Language and Linguistics A basic introduction to the fundamental principles of language and linguistics. (Not for major credit).

ANTH 240 Language and Culture (Not for major credit).

325 Introduction to Linguistics An introduction to sign systems, language as a sign system, and approaches to linguistics description.

501 Synchronic Linguistics A study of the theoretical foundations of major linguistic models with attention to problem solving and descriptive techniques. Prerequisite: 325.

502 Introduction to Comparative-Historical Linguistics A survey of the elements of comparative-historical linguistics. Prerequisite: 325.

505 Phonology and Morphology Analysis and description of sound systems and lexical structures. Prerequisite: 325.

506 Syntax and Semantics Analysis and description of sentence structure and its relationship to meaning. Prerequisite: 325.

507 Syntactic Theory A study of the major schools of syntactic theory. Prerequisite: 325.

525, 526 Romance Linguistics Vulgar Latin origins and patterns of linguistic change in principal Romance languages.

ANTH 341 Language of Inequality

ANTH 504 Linguistic Anthropology

ANTH 540 Descriptive Linguistics

ANTH 541 Sociolinguistics

ANTH 545 African Languages and Folklore

EDSA 505 Experimental Phonetics

ENLS 301 Language, Learning, and Literature

FREN 427 French Phonetics and Phonology

FREN 428 History of the French Language

PHIL 550 Philosophy of Language

PSYC 555 Developmental Psycholinguistics

RUSS 501, 502 Readings in Soviet Social Sciences

RUSS 521 The Structure of Modern Russian

RUSS 522 History of the Russian Language

UNIVERSITY OF WASHINGTON
LINGUISTICS DEPARTMENT

Linguistics is the scientific study of language, which is one of the most characteristic human attributes. In contrast with other disciplines concerned with languages, linguistics deals with languages from the point of view of their internal structure as cognitive systems. Courses provide training in the method and theory of language analysis and description, as well as studies of language change and genetic relationships.

MAJOR REQUIREMENTS

1. 200 or 400;
2. 451, 452;
3. 461, 462;
4. 453 or 463;
5. at least one year of a non-Indo-European language;
6. at least one year of an Indo-European language;
7. Specified courses in other departments or courses in linguistics, from a list on file in the department office. The principle focus must be in the study of language and its structure.

MINOR REQUIREMENTS

1. 200 or 400;
2. three of 451, 452, 461, 462;
3. two from either group a or group b:
    a. 447, SPHSC 250, 302, 303 and 307;
    b. 445, 449 and ED 457;
4. 12 hours in approved language-related courses in SPHSC, PSYCH, LING, ENGL or SPCHCOMM.

COURSE DESCRIPTIONS

200 Introduction to Linguistics Introduction to the scientific study of language; language and writing; phonological and grammatical analysis; language change; related disciplines.

201 Language and Human Behavior Elements of the biological basis of human language, the differences between animal and human communication and the function of language in society. Prerequisite: 200.

333 Linguistics and Society Interaction of language, culture and society and the relationship of linguistic theory to societal problems. Ethical and political considerations involved in the application of linguistic theory.

400 Survey of Linguistics Method and Theory Background and scope of modern linguistics; syntax, phonology; languages of the world.

401 Linguistics and Related Disciplines Relation of current work in linguistic theory to philosophical, psychological, political and educational thought.

402 Survey of the History of Linguistics Survey of the main trends in linguistic theory from ancient times until the advent of transformational-generative grammar. Includes Greek and Roman grammar, non-Western theories of grammar, nineteenth-century comparative and historical grammar, Prague School grammar and American structuralist grammar. Prerequisite: 400.

404, 405, 406 Indo-European Over view of the Indo-European languages, of comparative method and of the phonology, morphology and syntax of reconstructed Indo-European. Grammatical analysis and texts from various attested ancient and modern Indo-European languages, selected according to the interests of the students.

433/ANTH 464 Language Policy and Cultural Identity Decision-making regarding language in sociopolitical contexts. Language and ethnicity, educational policy, use of language in developing nations. Plans to modernize, purify, standardize, reform and revive language. Language loyalty and motives for second-language acquisition. Prerequisite: 200 or 400.

441 Linguistics and Poetic Language Relationship between linguistic structures, linguistic universals and the poetic uses of language; linguistic description in the analysis of literature. Prerequisite: 400.

443/PHIL 443 Philosophy and Linguistics Philosophical problems that arise in the attempt to understand current linguistic theories and the implications of linguistics for philosophy.

445 Theoretical Aspects of Teaching English as a Foreign Language Linguistic analysis as a basis for the teaching of English as a foreign language; language as rule-governed behavior. Prerequisite: 200 or 400.

447/PSYCH 457 Language Development First-language acquisition and use by children. Emphasis on theoretical issues and research techniques. Prerequisite: 400 or PSYCH 306.

449 Second-Language Learning Issues related to the psychological aspects of second-language learning. Prerequisite: 200 or 400.

451, 452, 453/PSYCH 451, 452, 453 Phonology Speech sounds, mechanism of their production and structuring of sounds in languages; generative view of phonology. Prerequisite: 200 or 400.

454 Methods in Comparative Linguistics Method and theory of historical and comparative linguistics. Problems of phonological, morphological, syntactic and semantic change and reconstruction. Prerequisite: 400.

455/ANTH 455 Areal Linguistics Issues involved in classification of languages. Systems of classification based on structure, word order, areal features. Ways in which languages may be classified for different purposes. Processes such as borrowing, vocabulary specialization, lexical change, language death and revival.

461, 462, 463/ANTH 461, 462, 463 Syntax Study of the structural properties of language; introduction to generative transformational syntax. Prerequisite: 200 or 400.

476/PHIL 453 Philosophy of Language Current theories of meaning, reference, predication and related concepts.

479/PHIL 479 Formal Semantics and Natural Language Formal characterization of linguistic meaning. Emphasis on nature and purpose of formal semantics and on its relation to formal syntax. Typical topics include Tarskian definitions of truth; "truth theory" and theory of meaning; possible world semantics; Montague semantics; generative semantics; Chomsky on syntax and semantics.

UNIVERSITY OF WESTERN ONTARIO
LINGUISTICS PROGRAM
DEPT. OF ANTHROPOLOGY
FACULTY OF SOCIAL SCIENCES

Linguistics is the study of language, not necessarily any particular language, nor necessarily as many languages as possible, but rather the study of the structures and patterns found in all languages. These structures relate meaning and sound and allow human beings to communicate with one another as well as facilitate the formation and codification of information about the external world. Most central to linguistics are the study of the sound systems of languages (phonology), the study of grammar (syntax), and the study of meaning (semantics). How languages change over time is the subject matter of historical linguistics (which is the area where the science of linguistics began). The study of a previously unstudied language by recording and analyzing the utterances of a speaker of the language is the subject matter of a course in linguistic field methods and is an important part of the craft of linguistics.

MAJOR

The B.A. in Anthropology (Linguistics) area of concentration may be entered after completion of a first year program. If ANTH 021E is not included in the first year program, it may be taken concurrently with second year courses as an option with the permission of the Department.

After the first year, the program requires at least five approved courses in Linguistics and Anthropology, including ANTH 247A and 248B. ANTH 245F/G, 237B, 335A and 337G are strongly recommended. Besides the courses listed here as mandatory, the following courses are counted as linguistics courses for the purpose of this requirement:

a. ANTH 325A, 326B, 430A, 431B

b. ENG 220 and 222

c. FRE 296A/B, 298A/B, and 396

d. GER 510

e. PHIL 222A, 223B, 225F, 353A/B, 451, and 455E

f. PSYCH 231, 232E, and 233E

g. RUSS 498A and 499B

h. SPAN 401

The balance of the courses required to complete the 15 course graduation requirement are options. The program must include 8 senior courses among the 15 required for graduation.

COURSE DESCRIPTIONS

ANTH 021E Introduction to Linguistics An introduction to the study of linguistics, including all aspects of language structure and communication systems.

ANTH 237A/B Field Techniques in Linguistics The phonological and lexical-grammatical systems of a language are studied. Prerequisite: 021E.

ANTH 245 F/G Topics in Language and Culture Culture is investigated using methods and techniques. Prerequisite: 020E or 021E.

ANTH 247A Phonological Analysis Introduction to the analysis of the sound systems of languages. Prerequisite: 021E.

ANTH 248B Introduction to Syntax and Semantics An introduction to contemporary grammatical theory: phrase structure grammars, early transformational grammars, grammars with an underlying (deep) syntactic structure. Prerequisite: 021E.

ANTH 325A Readings in Anthropology

ANTH 326B Special Topics in Anthropology

ANTH 335A Historical Linguistics Introduction to comparative linguistics. Topics include: historical relationships, reconstruction of proto-languages and the implications of linguistic reconstructions of culture history. Prerequisite: 021E.

ANTH 337A Topics in Language and Society Prerequisite: 245F/G.

ANTH 431B Methods and Techniques

UNIVERSITY OF WISCONSIN AT MADISON
LINGUISTICS DEPARTMENT
COLLEGE OF LETTERS AND SCIENCE

Linguistics is the scientific study of language. The linguist is concerned with languages, past and present, in all their diversity, but one ultimate goal of the discipline is to discover the common principles underlying all human language, and in this way to contribute to the understanding of human nature itself. Consequently, linguistics includes precise descriptive studies of particular languages, comparative and historical examinations of the way languages change through time and theoretical studies of a more abstract character as well. The principal divisions of the subject are these: phonetics and phonology (the structure of the sound system of language), morphology and syntax (the structure of words and sentences) and semantics and pragmatics (the relation of the forms of language to their meanings and uses in communication).

MAJOR REQUIREMENTS

1. 15 credits in courses numbered 300 or above offered by the Department of Linguistics, including the following specified 12 credits in core courses: 301, 302, 310 and 330;
2. At least three years study of one language, with a composition/conversation course in the third year instead of a literature course where there is and option;
3. An intensive one year course in another language;
4. At least one of the two must be a non-Western language (e.g., Indian or non-Indo-European); and
5. Either:
   a. Six additional credits in Linguistics courses and related disciplines, or
   b. An additional year of course work in one of the two language.

A student who wishes to be certified as competent in expository English must submit a paper written for a linguistics course to the major adviser. If the paper is considered satisfactory, the student will be certified.

COURSE DESCRIPTIONS

101 Human Language Invariant and essential aspects of human language in contrast with the diversity of linguistic forms and behavior; human vs. animal communication, linguistic 'sexism', prejudice, social and geographical variation. Language and the human mind.

200 Introduction to the Study of Language Survey of theoretical and practical aspects of descriptive, historical and comparative linguistics; interrelationships between linguistics and other disciplines.

301/Anthro 301 Introduction to Linguistics: Descriptive and Theoretical Elementary theory and practical work in phonetics, phonology, morphology and syntax, with attention to formal grammar. Prerequisite: 101.

302 Introduction to Linguistics: Historical Survey of various linguistic topics such as dialectology and writing systems, with emphasis on historical and comparative linguistics. Prerequisite: 301.

306 General Phonetics Theory of articulatory phonetics; practice in recognition, reproduction and transcription of speech sounds and features in various languages.

310 Phonology Analysis and formal statement of phonological systems; problems and methods of phonological theory. Prerequisite: 200 or 301.

322 Morphology Problems encountered in the establishment of linguistic elements (phonological, morphological and lexical) and grammatical categories. Prerequisite: 310.

326-27/SAsian 326-27Turkish I and II

330 Syntax Grammatical theory; types of elements and processes usable in syntactic description of various sorts. Prerequisite: 301.

331-32/SAsian 331-32 Turkish III and IV

337 Introduction to Formal Linguistics Basic mathematical, computational and logical techniques as applied to natural languages.

340 Semantics Meaning in natural languages and the consequences of semantic analysis for linguistic theory. Relationship between syntax and semantics. Formal characterization of semantic relations between words and sentences such as synonymity and entailment. Prerequisite: 330.

350 Pragmatics What people do with language, how language provides the means of communication. Indexical expressions; speech acts, presuppositions and conversational implications. The relation between semantic theory, syntax and pragmatics. Functional explanations in syntax and semantics. Prerequisite: 301.

360 Psycholinguistics An introductory study of the acquisition, comprehension and production of language with emphasis on the role of linguistic structure in these processes. Includes cross-linguistic comparisons and their contribution to understanding language use. Prerequisite: 301.

361-62/Anthro 361-62 *ELementary Quechua*

363/Anthro 363 *Intermediate Quechua*

364/Anthro 364 *Advanced Quechua*

370 *Language of the World* Survey of natural languages with emphasis on various principles of 'genetic' and areal classification.

373 *Topics in Linguistics*

400 *The Writing of Ordered Rules* Exercise in writing of ordered rules, phonological and morphological, with some reference to syntax. Prerequisite: 322.

426 *Advanced Linguistic Analysis I: Phonology* Work with a native speaker of a foreign language, normally non-Indo-European; discussion of field procedures, gathering and collation of data; evaluation of phonological analysis. Prerequisite: 306 and 310.

427 *Advanced Linguistic Analysis II: Grammar* Work with a native speaker of a foreign language, ordinarily the same as in 426; criteria for, and establishment of, morphological and syntactic categories in the language under consideration. Prerequisite: 426 and 330.

431/Anthro 431 *Language and Culture*

510 *Phonological Theories* Theories of phonology and advanced phonological description. Prerequisite: 310.

521 *Problems in Phonology*

522 *Problems in Morphology*

525 *The Historical Method* Theories and techniques of linguistic history from the mid-nineteenth century to the present. Prerequisite: 302.

526 *The Comparative Method* Theory and techniques of comparative linguistics; proof of 'genetic' relationship between languages; procedures for sub-grouping; internal reconstruction; Prerequisite: 302.

530 *Syntactic Theories* Prerequisite: 330.

561 *Introduction to Experimental Phonetics* Design and conduct of phonetic experiments; survey of instrumentation and techniques of investigating physiological, physical and perceptual aspects of linguistic phenomena. Theory of acoustic phonetics. Prerequisite: 306.

562 Advanced Experimental Phonetics Development of lab skills applied to real language problems. Prerequisite: 310 and 561.

571/African 571 The Structure of a Language Methods of descriptive linguistics by application at all levels of structure to one of the lesser-known languages. Analysis of simple texts. Problems arising from the attempt to make complete linguistic description. In recent years Latvian, Chermis, Sesotho, Turkish and Mongolian. Prerequisite: 301.

574 The Sanskrit Grammar of Panini The structure of Sanskrit and compared with W.D. Whitney's Sanskrit Grammar. Prerequisite: SAsian 318.

631 Hittite Cuneiform Hittite; grammar, reading of texts, relationship of Anatolian with Indo-European.

641 Topics in the History of Linguistic Theory

651 Topics in Altaic Linguistics Various aspects of the synchronic and diachronic study of the Altaic languages (Turkic, Mongolian, Manchu-Tungus and probably Korean and Japanese).

UNIVERSITY OF WISCONSIN AT MILWAUKEE
LINGUISTICS DEPARTMENT
COLLEGE OF LETTERS AND SCIENCE

Linguistics is the discipline which inquires into the nature of human language. In modern times, research in linguistics -- the search for the fundamental, universal properties of human languages in an effort to understand that apparently unique characteristic of human beings, the faculty of language -- has provided a basis for basic and applied research in many diverse disciplines. Recognition of the importance of modern linguistic research continues to grow today, with the consequence that the results of such research are now seen to have implications for numerous additional disciplines, for example, anthropology, computer science, education, ethology, sociology, and speech pathology.

MAJOR REQUIREMENTS

For the teaching major and minor, see the School of Education section.

The School of Education offers the following programs in conjunction with the Department of Linguistics: Bilingual and Bicultural Education -- Early Childhood, Elementary, Pre- and Early Adolescent; Bilingual and Bicultural Secondary Major -- Secondary Level; and English as a Second Language.

The undergraduate major in linguistics may be obtained in one of the following ways:

Standard Major

1. Thirty credits chosen from courses offered by the department, with the following courses required: 350, or 400, 390, 460, 464, 470, 398 or 474 or 476 or 560 or 564 (each worth three credits);
2. Phonetics course;
3. One of the following:
    a. Two years of one foreign language,
    b. Two semesters of a structure of a language course(s),
    c. One semester of a structure of a language course and one semester of a formal language system course (e.g. Philo 511, Symbolic Logic).

Broad Field Major

1. Eighteen credits chosen from courses offered by the department with the following courses required: 390, 460, 464;

2. Eighteen credits in linguistics and/or related areas.

MINOR REQUIREMENTS

1. Eighteen credits chosen from courses offered by the department or from courses in language-related areas, with the following linguistics courses required: 350, 390, 460 or 464, and one other course on the 300 or higher level.

2. Two semesters of foreign language or one semester of a foreign language and one semester of a computer language or logic or the structure of a language.

COURSE DESCRIPTIONS

100 Introduction to the Study of Language Survey course on the nature of language. Topics include: language and society, dialects, language change, language and culture, language acquisition, language and other communication systems.

099 English as a Second Language: Basic Grammar

110 English as a Second Language: Intermediate Grammar

112 English as a Second Language: Oral and Listening Skills Development

114 English as a Second Language: Reading Improvement

116 English as a Second Language: Fundamentals of Composition

117 English as a Second Language: Advanced Composition

118 English as a Second Language: Research Paper Writing

119 English as a Second Language for Science and Technology

131 First Semester of an Uncommonly Taught Language Elementary training in an uncommonly taught language (i.e., one not otherwise offered in any UWM program).

132 Second Semester of an Uncommonly Taught Language Prerequisite: 131.

200 Aspects of Language Selected topics involving innovative approaches to the study of language, particularly as related to other disciplines.

210 The Power of Words Dynamic role of language in interpersonal relations, social attitudes and behavior.

222 Linguistics and the Social Sciences A survey of recent concepts developed in new areas of interdisciplinary investigations into language and the social sciences.

231 Third Semester of an Uncommonly Taught Language Prerequisite: 132.

232 Fourth Semester of an Uncommonly Taught Language Prerequisite: 231.

260 Natural Logic Basic concepts, methods and results in natural logic. Relations between propositions and natural language sentences and discourse; relations between sentences in discourse; properties of grammars.

350 Introduction to Linguistics Introduction to basic linguistic principles and concepts. Elementary analysis of sentence patterns, sound systems and language change.

370 General Phonetics and Phonetics Practicum Study of Linguistic phonetics, including articulatory physiology, acoustics, and speech perception. Practice in production in a wide variety of speech sounds.

390 Fundamentals of Linguistic analysis Introduction to the systematic analysis of language. Principles and methods of describing phonological and syntactic processes. Prerequisite: 350 or 400

398 Topics in Linguistics

400 Introduction to English Linguistics

402 Studies in Spanish Grammar Prerequisite: Span 311.

410 Linguistics in Education Linguistic concepts relevant to education: implications for the teaching of language, reading and composition. Prerequisite: 350.

412 Applied Phonology An introduction to the application of phonetic and phonological principles to problems concerning disordered speech, language learning and interlanguage. Prerequisite: 350 and 370.

420 Contrastive Analysis Principles and methods of describing and comparing the structure of two or more languages with emphasis on the implications of this comparison for language learning. Prerequisite: 350.

426 Fieldwork in English as a Foreign Language Prerequisite: one 300 level course.

430 Language and Society The influence of society on language and of language on society. Language as social interaction, speech styles, social dialects; effects on language change. Prerequisite: 350.

432 Urban Dialects Study of language variation in urban areas. Structure of Black English vernacular and its relation to other dialects. Social and educational implications of dialect variation.

434 Issues in Bilingualism Study of bilingual competence, bilingual community and second language acquisition from sociolinguistic, psycholinguistic and general linguistic standpoints.

440 Psycholinguistics A survey of the history, goals, methods and findings of psycholinguistics. Principal topics: phonetic perception, speech production, syntactic processing, linguistic memory, meaning and language acquisition.

460 Phonology The basic properties of sounds, sound patterns and sound processes of spoken language studied within the framework of generative phonology. Prerequisite: 390.

464 Syntax Study of syntactic patterns in languages. Practice in syntactic analysis and argumentation using data from various languages, working toward a general theory of language. Prerequisite: 390.

466 Semantics The study of meaning in language; its role in grammatical description. Basic concepts used in semantic analysis and discussion of their place in grammatical theory. Prerequisite: 260 or 350 or Philo 211.

470 Historical/Comparative Linguistics The study of language change; introduction to internal reconstruction and the comparative method; generative approaches to historical change. Prerequisite: 390

474 Language Typology and Language Universals Comparison of phonetic, syntactic and lexical patterns of different languages, with emphasis on deriving statements about properties of all languages or of significant sub-classes of languages. Prerequisite: 390

476 Linguistic Theory Survey of twentieth century American linguistic theories from traditionalism through American structuralism to generative grammar, including discussion of some current issues. Prerequisite: 390.

490 Field Methods Work with a native speaker of a foreign language. Gathering and collation of data. Evaluation of possible phonemic and grammatical analyses. Prerequisite: 390.

492 Structure of a Language Study of the structure of a non-Indo-European language or an uncommonly taught Indo-European language such as Hindi, Persian, Yiddish, etc. Prerequisite: 390.

560 Advanced Phonology Fundamental issues in generative phonology; emphasis on comparing alternative models of phonological description. Prerequisite: 460.

564 Advanced Syntax Emphasis on the evaluation and justification of competing solutions and competing models of grammar. Prerequisite: 464.

VANDERBILT UNIVERSITY
LINGUISTICS PROGRAM
DEPT. OF GERMAN AND SLAVIC
COLLEGE OF ARTS AND SCIENCES

Course work in linguistics may be presented as part of an undergraduate interdisciplinary program of concentration. Students may arrange an interdisciplinary program of concentration in linguistics and in related areas.

COURSE DESCRIPTIONS

200 Introduction to Language Exploration and discussion of human communication in its physiological, psychological, sociological, philosophical, political, legal, and aesthetic aspects.

201 Introduction to Linguistics An introductory survey course designed to acquaint the student with the nature of human language and with its systematic study.

202/Sociology 202 Sociolinguistics The social dimension of language use. Variations in language produced by cultural, social class, sex and age difference and by the occasion of the speech event.

241 Language and Literature An examination of the interaction of literary and linguistic structures in the process of literary communication, emphasizing poetry. Texts in English and other languages will be analyzed. Prerequisite: 200 or 201.

262 Historical and Comparative Linguistics The study of language change, determination of relations among languages, reconstruction of parent languages, identification of the original speakers of reconstructed languages and their homeland.

294 Selected Topics

WAYNE STATE UNIVERSITY
LINGUISTICS PROGRAM
COLLEGE OF LIBERAL ARTS

Linguistics is an interdepartmental program that offers the student an opportunity to concentrate on the study of the fundamental nature of human language: language history and structure, linguistic theory, the application of linguistics, and the relationship between linguistics and other disciplines. The program is administered by an advisory committee composed of linguists from the Departments of Anthropology, English, Philosophy, Psychology, Near Eastern Languages, Romance and Germanic Languages, Slavic Languages, and Speech Communication.

MAJOR REQUIREMENTS

The bachelor of arts program consists of a core of linguistics courses which all majors must complete. In addition to the core courses, the student must pursue one of the following concentrations: Linguistics and a Language; Formal Linguistics: Syntax and Semantics; Psycholinguistics; Sociolinguistics; Individualized Program.

A student must complete a minimum of twenty-eight credits in core and concentration courses to satisfy the major requirements.

CORE COURSES

529 Structure of Language: Phonology

530 Structure of Language: Grammar

570 Introduction to English Linguistics

CONCENTRATIONS

Linguistics and a Language

Fifteen credits in advanced language skills or in the linguistics of the chosen language beyond the basic courses. In addition, the student must elect an appropriate course in historical linguistics and 572.

Formal Linguistics: Syntax and Semantics

1. The student must complete the following courses:
    - PHI 185 Symbolic Logic
    - LIN 572 Contemporary Development of Language: Ad
    - PHI 257 Philosophy of Language
    - ENG 572 Contemporary Development of Language
2. Additional Courses:
    - 571 Historical Development of the English Langua
    - ENG 572 American Dialects
    - CSC 652 Automata Theory
    - PHI 520 Modal Logic

PHI 535 Logical Systems I
PHI 539 Logical Systems II
PHI 563 Twentieth Century Analytic Philosophy I
PHI 564 Twentieth Century Analytic Philosophy II
PHI 779 Seminar in Philosophy of Language
PSY 671 Psycholinguistics

Psycholinguistics

1. The student must complete the following courses:
   PSY 671 Psycholinguistics
   PSY 209 Cognitive Processes

2. Additional Courses:
   PSY 240 Developmental Psychology
   PSY 609 Higher Mental Processes
   PSY 410 Statistical Methods in Psychology
   PSY 490 Directed Study and Research
   531 Language and Culture
   SPC 501 Psychology of Human Communications
   SPD 508 Phonetics

Sociolinguistics

1. The student must complete the following courses:
   531 Language and Culture
   532 Language and Society

2. Additional Courses:
   SPC 504 Communication in the Black Community
   SOC 410 Social Psychology
   SOC 525 Social Statistics
   PSY 567 Psychology of Interpersonal Communications
   PSY 671 Psycholinguistics
   ANT 520 Social Anthropology
   ENG 560 Studies in Folklore
   572 Advanced Syntax

MINOR REQUIREMENTS

The Linguistics Minor requires 3 core courses, plus 3 other courses from the Linguistics Program (18 credits).

Core Courses: 570, 529 and 530.

Three courses from the following linguistic concentrations: Formal Linguistics, Linguistics and a Language, Psycholinguistics, Sociolinguistics; or

Three linguistics courses from one of the following Liberal Arts departments: Anthropology, English, Greek and latin, Near Eastern Languages, Philosophy, Psychology, Romance and Germanic Languages, and Speech and Communications.

COURSE DESCRIPTIONS

170 English Grammar

185 Symbolic Logic

257 Introduction to the Philosophy of Language The nature of meaning, vagueness, truth, metaphor, translation, the relation between language and the world, the distinction between syntax, semantics and pragmatics.

271 Linguistic Approaches to Language Acquisition Topics may include the debate over innateness, issues in second language acquisition relations between acquisition and adult language breakdown (aphasia).

504 Communication in the Black Community Sociolinguistic and rhetorical analysis of speech and language behavior among Afro-Americans; linguistic history and development of Black English. Related issues concerning the education of black children.

520 Modal Logic Prerequisite: PHI 185 or 186.

529 The Structure of Language: Phonology Prerequisite: 570.

530 The Structure of Language: Grammar Prerequisite: 570.

531 Language and Culture An introduction to the structure of language and to the ways that humans use language in the construction of human worlds. Diversity of the world's languages and universal properties of language. Theories of language change.

532 Language and Society An introduction to the functions of language in many kinds of human groups.

536 Normal Language Acquisition and Usage

537 Philosophy of Language Philosophical problems concerning meaning, truth and the nature of language. Prerequisite: PHI 185, 186 or 257.

563 Twentieth Century Analytic Philosophy I Prerequisite: PHI 185, 186, or 257.

570 Introduction to English Linguistics

572 Topics in Language Topics such as: phonology, morphology, semantics, pragmatics, language change, history of English, pidgins and creoles, text grammar.

573 Traditional Grammar

576 American Dialects

WESTERN MICHIGAN UNIVERSITY
LINGUISTICS PROGRAM
DEPT. OF LANGUAGES AND LINGUISTICS
COLLEGE OF ARTS AND SCIENCE

Linguistics is the scientific study of language - its diversified structures and their dialectal variants, its acquisition by children and non-native speakers, its systems of writing and transcription, its cultural role in the speech community, and its application to other areas of human knowledge.

MAJOR

The major program requires 24 hours of credit in Linguistics courses and up to 6 hours in "cognate" courses. One college year of a foreign language, or its equivalent, is required.

MINOR

The minor program requires completion of 20 hours of credit in undergraduate linguistics courses.

Both majors and minors are required to consult with the adviser.

COURSE DESCRIPTIONS

105 The Nature of Language A broad introduction to the nature and development of language in human society and to the interdisciplinary aspects of current studies of language and language behavior.

500 Introduction to Linguistics An introduction to modern linguistic theory and to the application of that theory to linguistically-related disciplines.

511 Methods of Teaching English as a Second Language

512 Principles of Teaching English as a Second Language

515 Methods of Teaching Critical Languages Prerequisite: 201.

540 Generative Grammar An examination of the theories of transformational grammar and generative semantics, and a study of their origins. Prerequisite: 500.

551 Psycholinguistics A study of linguistic systems as they connect language and thought - and relate competence to performance - in the acquisition, production, and perception of language.

552 Sociolinguistics A systematic study of the linguistic correlates of social behavior and the influence of society on the nature of language.

597 Seminar in Linguistics

CRITICAL LANGUAGE COURSES

100 Basic Critical Languages I Study of a critical language at the elementary level with emphasis on conversation.

101 Basic Critical Languages II Continuation of 100. Prerequisite: 100.

200 Intermediate Critical Languages I Continuation of 101, with attention to reading and writing skills with the help of the dictionary. Prerequisite: 101.

201 Intermediate Critical Languages II Continuation of 200. Prerequisite: 200.

315 Reading Critical Languages Intensive practice in reading literature, newspapers, and other literary materials in the critical language. Prerequisite: 201.

316 Writing Critical Languages Intensive practice in writing a critical language. Prerequisite: 201.

COGNATE COURSES IN OTHER DEPARTMENTS

Anthropology

370 Culture and Communication

Communication Arts and Sciences

200 Introduction to Communication Theory

372 Introduction to General Studies

572 Non-Verbal Communication

574 Intercultural Communication

English

371 English language

372 Development of Modern English

373 Reading and Writing as Psycholinguistic Process

572 American Dialects

574 Linguistics for Teachers

Modern and Classical Languages

320 French Phonetics

558 Modern Language Instruction

559 History of the German Language

Speech Pathology and Audiology

203 Normal Language Acquisition

204 Phonetics

260 Linguistic Development of the Child

WEST VIRGINIA UNIVERSITY
LINGUISTICS PROGRAM
DEPT. OF FOREIGN LANGUAGES
COLLEGE OF ARTS AND SCIENCE

The Linguistics Program is part of the Department of Foreign Languages. A foreign language major must complete a minimum of 27 hours of upper-division work offered by the Department. Three hours must be Linguistics 111.

MAJOR

In addition to fulfilling the degree requirements, a foreign language major interested in linguistics selects the Linguistics degree option:

Linguistics: 202,283, 284, plus one upper-division linguistics course approved by an adviser.

COURSE DESCRIPTIONS

1 Introduction to Language General introduction to the nature of human language - its sounds, structure, mechanisms, and forms; its evolution and variation, and how it differs from animal communication.

2 Introduction to Language Introduction to the different languages of the world.

111 Introduction to Structural Linguistics

202 Phonology Description of sounds and sound systems in language. Articulatory phonetics. Structuralist and generative approaches to phonemics. Prerequisite: 1, 111.

217 Structure of Spanish Prerequisite: 18 hrs of Spanish and 111.

247 Structure of Modern French Prerequisite: 18 hrs of French and 111.

257 Structure of German 18 hrs of German and 111.

267 Structure of Russian 18 hrs of Russian and 111.

283 Transformational Grammar Emphasis on generative syntax in English, Slavic, German, Romance. Prerequisite: 111.

284 History of Linguistics Development of linguistics from Greeks and Romans to present. Prerequisite: 111.

287 Psycholinguistics Provides an insight into the many areas of psycholinguistic study, including language acquisition, sentence processing, animal communication, and semantics. Prerequisite: 111.

288 Sociolinguistics Linguistic study of geographical and social variation in languages; effects of regional background, social class, ethnic group, sex and setting. Prerequisite: 111.

YALE UNIVERSITY
LINGUISTICS DEPARTMENT
HUMANITIES

The major in Linguistics is an interdisciplinary program of studies leading toward an understanding of phonological, grammatical and semantic structure, methods of analysis in descriptive and historical linguistics and the relationship of language to man and society. It also includes course work leading to proficiency in one or two foreign languages. The program is flexible: a student majoring in linguistics may decide to concentrate on general linguistics, on linguistic theory, on various aspects of comparative grammar or on a particular family of languages.

MAJOR REQUIREMENTS

The major program consists of fourteen term courses, according to the three requirements listed below.

1. The student must take six term courses in linguistics above the level of 110, including 491a or b.

2. The student must complete two years (or the equivalent) in one or two foreign languages and/or literatures beyond the elementary level.

3. The remainder of the major consists of four term courses (or the equivalent) selected from such courses as those in the following list:

    a. One or two additional term courses in linguistics,

    b. Another course in a foreign language or literature at the level of 140 or higher,

    c. Any other courses relevant to linguistics in such departments as Anthropology, Computer Science, English, Mathematics, Philosophy, Psychology and Sociology.

COURSE DESCRIPTIONS

Introductory Courses

105b Language: A General Introduction Survey of linguistics and related fields. Phonetics, sound systems, morphology, syntax, semantics. Linguistic change and the history of English; psycholinguistics and language acquisition.

110a Language: Introduction to Linguistics The goals and methods of linguistics. The relation of linguistics to psychology, logic and other disciplines. Basic concepts in phonology, morphology, syntax and semantics. Techniques of linguistic analysis and construction of linguistic models. Trends in modern linguistics.

For students of linguistics, psychology and philosophy.

112a/512a Historical Linguistics Types of change that a language undergoes in the course of time; phonetic change, analogic-semantic change, borrowing. Inferences that can be drawn from comparison of languages; relation of the dialectology to the history of a language.

113b Introduction to Indo-European Location in space and time of the major branches of Indo-European; history of Indo-European studies, especially the development of methodology; sketch of the phonology, morphology, syntax and lexicon of proto-Indo-European, with main developments of these in the daughter languages.

114b Words and Meaning Form, function and meaning of words. What is a word? What are its components? Traditional and current approaches to characterizing word meaning and change.

115/Indic 515 Elementary Sanskrit Careful study of Sanskrit grammar both in its historical development and as the synchronic system attested in classical Sanskrit. Historical phonology and morphology treated in detail; comparisons with other old Indo-European languages. Close reading in later sanskrit texts.

120a/520a General Phonetics Investigation of possible ways of describing the speech sounds of human languages. Tools to be developed: acoustics and physiology of speech; computer synthesis of speech; practical exercises introducing and transcribing sounds.

122b/522b The Biology of Language The biological significance of the linguistic universals. Particular attention to those aspects that distinguish language from other modes of communication and that may distinguish man from other species.

132a/532a Phonological Analysis The structure of sound systems in particular languages. Phonemic and morphophonemic analysis, distinctive feature theory, formulation of rules and problems of rule interpretation. Emphasis on problem solving.

135b/535b Foundations of Generative Phonology The development of generative phonology and some contemporary problems. The discovery of iteration, the cycle and the problem of constraining phonological variables. The analysis of syllables, tones and stress in the developing non-linear framework. Prerequisite: 132a.

138b/538b Morphological Structures A synchronic analysis of morphological forms and categories in languages of diverse structure, primarily Indo-European (English, Romance, Slavic, etc.). Parts of speech, grammatical categories and derivational patterns.

148a/548a Language and Writing Systems An investigation of the various types of correspondences between spoken languages and the writing systems employed to represent them. Study of these types of correspondences applied in turn to contemporary methods used in the decipherment of unknown languages manifested only in written documents.

153a/553a Introduction to Transformational Grammar: The Syntactic Structure of English

Advanced Courses

162a/562a Foundations of Semiotics Semiotics as a theory of sign systems. Basic functions of signs. Sign systems in science, literature and the arts. Typology of signs and of sign systems. Conceptual problems in semiotics. Semiotic bases of linguistics. Methods of semiotic research.

167b/567b Semantic Models Comparative study of contemporary semantic models for the study of natural languages: generative and interpretative semantics; Montague grammar.

174a/574a Computer Programming for Linguistics and Literary Research An introduction to programming in the PL/1 language for text-processing applications.

190b/590b History of Linguistics Highlights from ancient times to the present, concentrating on questions of aim, framework and method.

221b/621b The Relation of Speech to Language A study of the relation between the speech signal and the linguistic message it conveys. Special attention to those characteristics of speech that fit it to man and make it a uniquely efficient vehicle of communication.

222b/622b Topics in Acoustic Phonetics A survey of the acoustic basis of segmental and suprasegmental phonetic structures, and of the relation between the acoustic patterns and the vocal-tract shapes that produce them.

241b Language Description Analysis and description of a language previously unknown to members of the class. Students work directly with a native informant under the guidance of the instructor.

254b/654b Transformational Models for Language Central issues in the development of transformational-generative grammar from Chomsky's *Syntactic Structures* to the present. Development of the "standard theory," debates between interpretive and generative semanticists in the late 1960s and recent out-growths of those debates. Attempts to refine syntactic theory, to delineate its boundaries and to constrain the power of the grammars.

255a/655a Syntactic Theory Empirical and conceptual problems of contemporary theories of syntax. Types of syntactic representation. Syntactic typology. Trends in contemporary theory of syntax. Prerequisite: 153a.

256a/656a Grammatical Relations Descriptive and theoretical approaches to grammatical relations (the notions subject, object, etc.) and their role in syntax and linguistic universals. Comparison of diverse models: traditional approaches, case grammar, relational grammar, lexical-functional grammar, REST/Government-Binding, Montague grammar. Grammatical relations vs. 'thematic' relations; grammatical relations as primitives or defined terms; typological considerations. Prerequisite: 153a.

262b/662b Syntax and Semantics Role of semantics in a grammar (i.e., the syntax/semantics interface). Discussion of phenomena whose account involves both syntactic and semantic considerations. Semantics in current syntactically based theories (GB, GPSG, LFG). Prerequisite: 153a or 263a.

263a/663a Semantics: Theory and Problems Main insights of modern semantics, considered mainly with reference to semantic change.

263a Synchronic Semantics

264a/664a Diachronic Semantics

263a/663a Semantics Theoretical and descriptive semantics of natural language. Compositional theories of sense and reference; sentence meaning versus speaker's meaning; word meaning and lexical semantics; synonymy, ambiguity, entailment, presupposition.

269a/669a Metaphor A linguistic study of metaphor and related uses of language with special attention to the concerns of literary criticism. Both the semantical problems of metaphor and the question of how to describe metaphor by precise rules considered.

273b/673b Language, Language Acquisition, Language Teaching Methods Investigation of various language teaching methods and the basic linguistic principles involved. Practicals, demonstrations in various languages by instructor, guests and class.

277a/677a Pragmatics: The Use and Uses of Speech Speech act theory (Austin, Searle); implicature (Grice); presupposition (Strawson); token-reflexives (Reichenbach, Bar-Hillel).

295b/695b Poetics and Linguistics Speech and language. Distinctive properties of oral and written poetic discourse. Phonological systems and systems of versification. The semantics of poetic texts. Synchrony and diachrony in poetic text. Competence and performance.

YORK UNIVERSITY
LINGUISTICS PROGRAM
DEPT. OF LANGUAGES, LITERATURES AND LINGUISTICS

Linguistics is concerned with discovering the organizing principles of human languages, and applying these principles to the description of individual languages. Using systematic descriptions of language and language usage, linguists also investigate how language interacts with intellectual and cultural life. As a result the study of linguistics can provide new perspectives on almost every aspect of the humanities and social sciences. In addition, it has applications to teaching, speech therapy and the applied sciences of communication engineering and computer science.

The Department of Languages, Literatures and Linguistics offers courses in linguistics leading to three-year and four-year B.A. degrees.

MAJOR REQUIREMENTS

Students will take at least five courses in linguistics, including LIN 1000.06, 2100.06, 3110.03, 3120.03 and 3140.03.

COURSE DESCRIPTIONS

1000.06 Introduction to Linguistics Language, in order to serve as a viable means of communication, must be composed of systematic structural relationships. This course investigates the various levels of language (phonetics, phonology, morphology, syntax and semantics) and their inter-relationships.

2060.06 The Grammatical Structure of English

2100.06 Fundamentals of Linguistic Analysis Practical work in the solution of problems in phonology, morphology, and syntax will be stressed. Prerequisite: 1000.06.

2210.06 Social Aspects of Language Introduction to the study of language as a social phenomenon, using methods of modern linguistics and other disciplines to help understand some aspects of language distribution.

2410.03F Language and Sex Linguistic differences between males and females with respect to the use and structure of language.

2420.03W Animal Communication Comparison of human communication to the ways in which various non-human species convey information.

2800.03W Special Topic; Language and Power

3110.03F Articulatory Phonetics Reviews a wide range of sound types which occur in speech events in a considerable variety of human languages. Prerequisite: 1000.06.

3120.03W Phonology Introduction to generative phonology. Prerequisite: 2100.06.

3140.03F Syntax A basic introduction to transformational syntax, the role of language acquisition data in the construction of syntactic theory. Prerequisite: 2100.06.

3220.03F Psycholinguistics The relevance of linguistic theory to psycholinguistics; emphasis on language development. Prerequisite: 1000.06 or PSY 1010.06.

3230.03F Second Language Learning Introduction to second language acquisition. Prerequisite: 1000.06 or 3220.03 or PSY 3290.03.

3410.03W Writing Systems The interaction of spoken language and writing; examination of the internal structure and the functioning of various types of writing systems. Prerequisite: 1000.06.

4040.03F Historical Linguistics Introduction to the study of languages as they change through time and to the related topics of dialect geography and linguistic prehistory. Prerequisite: 3120.03.

4070.03W A History of the Romance Language Family Prerequisite: 4040.03.

4140.03W Grammatical Theories Examination of meta-theoretical issues and assumptions underlying the development of different linguistic theories. Prerequisite: 3140.03.

4320.06 Field Methods Prerequisite: 2100.06, 3110.03 and one of 3120.03 or 3140.03.

4800.03F Special Topic: Current Phonological Theories Prerequisite: 3120.03.

APPENDIX 2

The Status of Undergraduate Education in Linguistics in the United States and Canada

by

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The views expressed are those of the authors and do not necessarily reflect the position of the LSA or the National Endowment for the Humanities.

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PREFACE

The Linguistics in the Undergraduate Curriculum (LUC) project is an effort by the Linguistic Society of America (LSA) to study the state of undergraduate instruction in linguistics in the United States and Canada and to suggest directions for its future development. It was supported by a grant from the National Endowment for the Humanities during the period 1 January 1985-31 December 1987. The project was carried out under the direction of D. Terence Langendoen, Principal Investigator, and Secretary-Treasurer of the LSA. Mary Niebuhr, Executive Assistant at the LSA office in Washington, DC, was responsible for the day-to-day administration of the project with the assistance of Nicole VandenHeuvel and Dana McDaniel.

Project oversight was provided by a Steering Committee that was appointed by the LSA Executive Committee in 1985. Its members were: Judith Aissen (University of California, Santa Cruz), Paul Angelis (Southern Illinois University), Victoria Fromkin (University of California, Los Angeles), Frank Heny, Robert Jeffers (Rutgers University), D. Terence Langendoen (Graduate Center of the City University of New York), Manjari Ohala (San Jose State University), Ellen Prince (University of Pennsylvania), and Arnold Zwicky (The Ohio State University and Stanford University). The Steering Committee, in turn, received help from a Consultant Panel, whose members were: Ed Battistella (University of Alabama, Birmingham), Byron Bender (University of Hawaii, Manoa), Garland Bills (University of New Mexico), Daniel Brink (Arizona State University), Ronald Butters (Duke University), Charles Cairns (Queens College of CUNY), Jean Casagrande (University of Florida), Nancy Dorian (Bryn Mawr College), Sheila Embleton (York University), Francine Frank (State University of New York, Albany), Robert Freidin (Princeton University), Jean Berko-Gleason (Boston University), Wayne Harbert (Cornell University), Alice Harris (Vanderbilt University), Jeffrey Heath, Michael Henderson (University of Kansas), Larry Hutchinson (University of Minnesota, Minneapolis), Ray Jackendoff (Brandeis University), Robert Johnson (Gallaudet College), Braj Kachru (University of Illinois, Urbana), Charles Kreidler (Georgetown University), William Ladusaw (University of California, Santa Cruz), Ilse Lehiste (The Ohio State University), David Lightfoot (University of Maryland), Donna Jo Napoli (Swarthmore College), Ronald Macaulay (Pitzer College), Geoffrey Pullum (University of California, Santa Cruz), Victor Raskin (Purdue University), Sanford Schane (University of California, San Diego), Carlota Smith (University of Texas, Austin), Roger Shuy (Georgetown University), and Jessica Wirth (University of Wisconsin, Milwaukee).

Contents

Page

Discussion 1

US Tables

Table US1. Alphabetic Listing of US Institutions 8
Table US2. Listing of US Institutions, by State 8
Table US3. Last Reported Status of Linguistics at US Institutions Not Listed in the 1987 LSA Directory of Programs and Not Responding to the LUC Project 12
Table US4. Status of Linguistics at US Institutions Listed in the 1987 LSA Directory of Programs or Responding to the LUC Project 16
Table US5. US Institutions with Departments of Linguistics 17
Table US6. US Institutions with Programs in Linguistics 21
Table US7. Host Departments for US Programs in Linguistics 23
Table US8. Previous Status of Linguistics Departments or Programs at US Institutions 25
Table US9. Administrative Structure into Which Linguistics Fits at US Institutions, Based on LUC Questionnaire and Catalog 26
Table US10. US Institutions Offering Joint Majors in Linguistics with Other Disciplines, as Reported to the LUC Project 27
Table US11. Other Departments Offering Linguistics Courses at US Institutions as Reported on the LUC Questionnaire 30
Table US12. Number of BA Degrees in Linguistics Granted in Selected Academic Years from 1972-73 to 1986-87 by US Institutions According to the LSA Directory of Programs, Arranged Alphabetically by Granting Institution 31
Table US13. Number of BA Degrees in Linguistics Granted in Selected Academic Years from 1972-73 to 1985-86, by State 34
Table US14. US Institutions Granting One or More Undergraduate Degrees in Linguistics in 1976-77 According to 1978 LSA Directory of Programs 37
Table US15. US Institutions Granting One or More Undergraduate Degrees in Linguistics in 1985-86 According to 1987 LSA Directory of Programs and LUC Questionnaire 38
Table US16. Number of Undergraduate Degrees in Linguistics Awarded in 1976-77 by State, According to 1978 LSA Directory of Programs 40
Table US17. Number of Undergraduate Degrees in Linguistics Awarded in 1985-86 by State, According to 1987 LSA Directory of Programs 42
Table US18. US Institutions Offering an Undergraduate Major in Linguistics, Number of Majors Enrolled in 1972-73 as Reported in the 1974 Directory of Programs, and Number of Majors Enrolled in 1985-86 as Reported on the LUC Questionnaire 43
Table US19. US Institutions Offering an Undergraduate Minor in Linguistics and Number of Minors Enrolled in 1985-86 as Reported on the LUC Questionnaire 44
Table US20. Enrollment in Linguistics Courses at US Institutions as Reported on the LUC Questionnaire 47
49

Canadian Tables -- Page
Table CA1. Alphabetic Listing of Canadian Institutions ---------------- 52
Table CA2. Listing of Canadian Institutions, by Province -------------- 52
Table CA3. Last Reported Status of Linguistics at Canadian Institutions Not Listed in the 1987 LSA Directory of Programs and Not Responding to the LUC Project ------------ 53
Table CA4. Status of Linguistics at Canadian Institutions Listed in the 1987 LSA Directory of Programs or Responding to the LUC Project --- 54
Table CA5. Canadian Institutions with Departments of Linguistics ------- 54
Table CA6. Canadian Institutions with Programs in Linguistics ---------- 55
Table CA7. Host Departments for Canadian Programs in Linguistics ------- 55
Table CA8. Previous Status of Linguistics Departments or Programs at Canadian Institutions ------------------------------------ 55
Table CA9. Administrative Structure into Which Linguistics Fits at Canadian Institutions, Based on LUC Questionnaire and Catalog --- 56
Table CA10. Canadian Institutions Offering Joint Majors in Linguistics with Other Disciplines, as Reported to the LUC Project ------ 56
Table CA11. Other Departments Offering Linguistics Courses at Canadian Institutions as Reported on the LUC Questionnaire ---------- 57
Table CA12. Number of BA Degrees in Linguistics Granted in Selected Academic Years from 1972-73 to 1985-86 by Canadian Institutions According to the LSA Directory of Programs, Arranged Alphabetically by Granting Institution ------------ 57
Table CA13. Number of BA Degrees in Linguistics Granted in Selected Academic Years from 1972-73 to 1985-86, by Province --------- 58
Table CA14. Canadian Institutions Granting One or More Undergraduate Degrees in Linguistics in 1976-77 According to 1978 LSA Directory of Programs ----------------------------------- 58
Table CA15. Canadian Institutions Granting One or More Undergraduate Degrees in Linguistics in 1985-86 According to 1987 LSA Directory of Programs and LUC Questionnaire --------------- 59
Table CA16. Number of Undergraduate Degrees in Linguistics Awarded in 1976-77 by Province, According to 1978 LSA Directory of Programs --- 59
Table CA17. Number of Undergraduate Degrees in Linguistics Awarded in 1985-86 by Province, According to 1987 LSA Directory of Programs --- 59
Table CA18. Canadian Institutions Offering an Undergraduate Major in Linguistics, Number of Majors Enrolled in 1972-73 as Reported in the 1974 Directory of Programs, and Number of Majors Enrolled in 1985-86 as Reported on the LUC Questionnaire -- 60
Table CA19. Canadian Institutions Offering an Undergraduate Minor in Linguistics and Number of Minors Enrolled in 1985-86 as Reported on the LUC Questionnaire ------------------------ 60
Table CA20. Enrollment in Linguistics Courses at Canadian Institutions as Reported on the LUC Questionnaire --------------------- 61

Discussion

This report is a part of the Linguistics in the Undergraduate Curriculum (LUC) Project of the Linguistic Society of America, funded by the National Endowment for the Humanities. It is based primarily on information contained in the Directory of Programs in Linguistics in the United States and Canada published by the LSA, of which six have appeared: in 1974, 1978, 1980, 1982, 1984 and 1987; and on responses to a questionnaire that was developed by Daniel Brink of Arizona State U and Victor Raskin of Purdue U and distributed in early 1987. The information obtained from the Directory and responses to the LUC questionnaire was entered into database files by Dana McDaniel of the CUNY Graduate Center. Additional information was obtained from the Catalog of Undergraduate Programs in Linguistics that was prepared by Frank Heny at SUNY at Albany as part of the LUC Project, from the Digest of Education Statistics compiled by the US Department of Education Information Office, and from the LSA Manpower Survey that was completed in 1972.

The analysis in this report encompasses 225 institutions of higher learning, 201 (89%) in the US and 24 (11%) in Canada. Of the 201 US institutions, 156 (78%) are listed in the main section of the 1987 Directory of Programs in Linguistics in the United States and Canada, published by the LSA; in addition, six responded to the LUC questionnaire and three others submitted copy for the LUC Catalog. Thus, at least 165 institutions of higher education in the United States are currently actively engaged in linguistics education, of which all but 14 (i.e. 151) are engaged in undergraduate linguistics education. Thirty-six US institutions that had previously been listed in an LSA Directory of Programs responded neither to the questionnaire nor to the request for catalog copy; most of these may be presumed no longer to be actively engaged in education in linguistics. Of the 24 Canadian institutions, 17 (71%) are listed in the main section of the 1987 LSA Directory of Programs; in addition, one responded to the LUC questionnaire. All 18 are involved in undergraduate education in linguistics. Six Canadian institutions that had previously been listed in an LSA Directory of Programs did not respond to requests for information from the LUC Project.

Tables US1 and CA1 (henceforth, Table n is used to refer to both Table USn and Table CAn) present alphabetic listings of all the institutions of higher education covered in this report, while Table 2 lists the same institutions by state or province. These tables show where information about the institutions has been obtained. They reveal that the total number of institutions that have been listed in the various LSA Directories has held nearly constant since 1980, after having climbed somewhat from the 1974 number in the case of the US and having declined somewhat in the case of Canada. They also reveal that the response rate to requests for information from the LUC Project (for the catalog and the questionnaire) was excellent. In the US, California is the state with the largest number of institutions listed (35); followed by New York (21), Illinois (12), Massachusetts (11), Texas (11) and Michigan (10). Four states had no institutions listed: Maine, North Dakota, South Dakota and Wyoming. In Canada, Ontario is the province with the largest number of institutions listed (8), followed by Québec (7) and British Columbia (3). Two provinces had no institutions listed: Nova Scotia and Prince Edward Island.

Table 3 lists the 42 institutions (36 US and 6 Canadian) that formerly reported offering linguistic work and no longer do, and an indication is given of the last year in which the institution had an entry in the LSA Directory.

All but one of these programs (at the Illinois Institute of Technology) offered undergraduate work in linguistics; and of these, nine (six US and three Canadian) reported granting undergraduate degrees in linguistics in at least one LSA Directory (see the discussion of Table 12). The tabulation of final dates of listing shows that the rate at which linguistics departments or programs are passing out of existence has slowed since the late 1970s, and for the past ten years or so the rates at which linguistics units have come into and passed out of existence have been about the same. (Presumably, before the mid-1970s, the rate at which linguistics units were created exceeded that at which they were eliminated, but the LSA has no information about the demise of linguistics programs prior to 1974.)

Table 4 provides information about the current status of existing linguistics offerings in the United States and Canada. It shows that the historical preponderance of graduate programs in linguistics has finally been overcome: there are now more institutions offering a bachelor's degree in linguistics in the US and Canada (128) than there are institutions offering a Master's degree (107) or a PhD (60). A joint undergraduate major in linguistics and another discipline is now also available at 38 institutions and an undergraduate minor is offered at 100 institutions in the US and Canada.

Table 5 lists the institutions with departments of linguistics, the names of the departments and the year each was established. Sixty-one of the 79 (77%) are simply called "Department of Linguistics" or the equivalent. Eleven (14%) are combined departments of language (and, in a couple of instances, literature) and linguistics, and another seven (9%) combine linguistics with a nonlanguage discipline. Only one of the latter explicitly combines linguistics with TESL in its name, though TESL (or ESL or TESOL) programs are offered and administered by many linguistics departments in both countries. Ignoring Departments of Linguistics that existed and then disappeared before the early 1970s, it may be noted that before 1960 there were only six Departments of Linguistics in the US and Canada, all of them in the US. By 1970, however, there were well over 50, and by 1975, there were nearly 70. One may conclude that linguistics became established in the American and Canadian academic scene in the 1960s and early 1970s. Since 1975, about ten new departments have been established.

Table 6 presents comparable information for programs in linguistics, though no tabulation is attempted for the names of the various programs. Linguistics programs are more common, relatively speaking, in the US than in Canada, there being only four Canadian programs altogether, compared with 91 programs in the US. Most of the currently existing linguistics programs were established in the 1970s, since many of the linguistics programs which were established in the 1960s have since become departments. While the rate at which programs are being established has slowed since the mid-1970s, it is still appreciable.

Table 7 provides the names of the host departments for linguistics programs which are known to the LSA, 38 in all. Well over half of the host departments (21) are Departments of English, while another language department is host in seven (about 20%) of the cases. Anthropology is host to five departments; psychology to two; two programs are administered by more than one department; and one by a Department of General Studies. Presumably, many of the programs for which the LSA did not obtain information about host departments are administered jointly by several departments, or directly by a higher level administrative division, such as a Dean's office.

Table 8 presents information about 43 institutions for which the LSA knows the previous status of the current linguistics department or program. In 33, or over 75%, of these institutions, a program became a department. On the average, these program existed for nine years before they became departments. The longest time that such a program was in existence is 35 years (at Harvard U); the shortest is less than a year (at Georgetown U). In addition, seven programs became programs with a different name or focus, and one department changed its name: the Brown U Department of Linguistics became the Department of Cognitive and Linguistic Sciences in 1986. Finally, two departments were downgraded to become programs, at U North Carolina in 1981 and U Michigan in 1985.

Table 9 presents the names of the college or university entities which administer linguistics programs or departments at 139 institutions. In 84 institutions (60%), it is a College, Faculty, Division or School of Arts, or Arts and Science, or Letters and Science, etc. In 24 institutions (17%), it is a School, College or Division of Humanities alone, while in another 13 (9%), it is a unit combining Humanities with Arts, Science or Social Science. In 15 institutions (11%), it is a unit of Social Science or Communication. Finally, in one institution (Brown U), it is a division of Biological and Life Sciences; and in another (Georgetown U), it is a School of Languages and Linguistics. Linguistics as a discipline straddles the division between the humanities and the sciences, a fact which is reflected in the institutional arrangements it enters into.

Table 10 lists the institutions that offer a joint major in linguistics and another discipline, and for each such institution, the other disciplines that may be combined with linguistics in obtaining an undergraduate degree. Of the 38 institutions that currently offer joint majors in linguistics, 31 are in the US and 7 are in Canada. All Canadian institutions that offer a joint major in linguistics also offer a regular major in linguistics, whereas nearly half (15) of the US institutions that offer a joint major in linguistics do not offer a regular major in linguistics. Joint majors programs are also relatively more common in Canada than in the US. In Canada, the number of joint major programs in linguistics is nearly 40% of the number of regular undergraduate major programs there, whereas in the US, the number of joint major programs in linguistics is less than 30% of the number of regular undergraduate major programs there. A total of 65 departments or programs (52 in the US and 13 in Canada) were listed as cooperating with linguistics in offering a joint degree. Modern language departments are by far the most preponderant, numbering 36 (55%) of the total, including 11 (17%) English departments. The others are distributed among TESOL (5), Anthropology (4), Philosophy (4), Psychology (4), Speech and Communication (4), individualized study and honours (4), Classics (1), Computer Science (1), Mathematics (1), and Liberal Arts (1).

Table 11 lists the institutions which reported that undergraduate linguistics courses are taught in other departments, and for each such institution, the names of the departments are listed. A total of 37 institutions are listed, 35 in the US and 2 in Canada; and a total of 137 departments are listed, 131 in the US and 6 in Canada. Again, departments of modern languages are preponderant, totaling 71 (52%), including 22 English departments (16%). Next comes Anthropology, with 23 departments (17%), followed by Psychology (12), Philosophy (11) and Speech (9). Departments of Computer Science and Education were listed three times each, Classics and Sociology twice each, and Social Science once.

Table 12 tabulates the number of undergraduate degrees in linguistics granted by each US or Canadian institution in each of the years covered by the LSA Directory of Programs. Only institutions which reported granting at least one such degree in at least one of those years are listed. There are 144 such institutions, 123 in the US and 21 in Canada. The LSA Directory of Programs provides information about degrees granted in linguistics in eight out of the fourteen academic years in the period from 1972-73 to 1985-86, including every academic year since 1980-81 except for 1983-84. In those eight academic years, a total of 5776 degrees were reported granted, 4371 (75.7%) by US institutions and 1405 (24.3%) by Canadian institutions. In fact, the number of degrees reported granted is somewhat larger, but in a few cases, the numbers have been adjusted downwards (indicated by the # sign in Table 12) for a variety of reasons, but mostly to eliminate degrees presumed not to be degrees in linguistics. In the US, the number of undergraduate degrees reported granted in linguistics reached a peak of 629 in 1976-77, fell to 501 in 1980-81, and rose more or less steadily to 591 in 1985-86. The US Department of Education Digest of Educational Statistics reports figures for three of these academic years, based on information provided by college and university registrars. In both 1978-79 and 1980-81, those figures are slightly higher than those reported by the LSA, but in 1984-85 the figure is significantly smaller (by more than 100, or nearly 20%). No explanation for the latter discrepancy is immediately obvious. Assuming that the Department of Education figure is accurate, we may conjecture that some of the degrees reported by the LSA as degrees in linguistics were not reported as such by registrars, perhaps because they were joint degrees with another discipline and were reported under the other discipline's name, or perhaps because graduates whom some programs in linguistics consider theirs are considered graduates of another department by registrars.

Looking back in time, we find that the number of bachelor's degrees granted in linguistics has grown to its current size from less than 50 in the 1960-61 academic year. According to the 1972 LSA Manpower Survey, 38 bachelor's degrees in linguistics were granted in the US in 1955-56, 41 in 1960-61, 113 in 1965-66, and 254 in 1970-71. Thus the number of undergraduate degrees granted in the US in linguistics more than doubled in each five-year period from 1960-61 to 1975-76, but has, assuming the correctness of the figures reported to the LSA (as adjusted in this report), declined by about 5% since then, or, assuming the correctness of the Department of Education figures for 1984-85, declined by over 20% since then.

The LSA has been somewhat less successful in collecting information about number of undergraduate degrees awarded in linguistics from Canadian institutions than it has from US institutions. For example, it failed to get such information from McGill U in 1972-73, 1978-79 and 1980-81; from U Montréal in 1978-79 and 1982-83; and from Simon Fraser U from 1978-79 to 1982-83. Since the total number of institutions granting undergraduate degrees in linguistics in Canada is relatively small compared to the US, and since the above-named institutions grant comparatively large numbers of undergraduate degrees in linguistics, the effect of these gaps is considerable. Nevertheless, the information that the LSA has obtained shows that the number of undergraduate degrees granted in linguistics by Canadian institutions has grown throughout the period from 1972 to the present, so that, particularly recently, the number of such degrees is much larger in proportion to the population of the country than the number of US degrees. In 1976-77, Canadian institutions granted 20.2% of the undergraduate degrees in linguistics granted in the US and Canada as reported to the LSA; by 1985-86, the percentage had grown to 29.2%.

Of the 123 US institutions which granted undergraduate degrees in linguistics in one of the eight academic years reported in Table US12, six had no entry in the 1987 LSA Directory and did not respond to the LUC Project. These institutions reported granting a total of 45 degrees, or 1.0% of the total number of undergraduate degrees in linguistics reported granted in the US during those periods. Of the 21 Canadian institutions listed in Table CA12, three had no entry in the 1987 LSA Directory and did not respond to the LUC Project. These institutions reported granting a total of 32 degrees, or 2.3% of the total number of undergraduate degrees in linguistics reported granted in Canada during those periods.

Table 13 presents the number of undergraduate degrees reported granted in the same eight academic years by state and province. By comparing the US and Canadian figures, we see that the total number of undergraduate linguistics degrees granted in Canada is only slightly less than the total number granted in California, and that in the two most recent academic years reported, the number of degrees granted by Canadian institutions exceeds that of degrees granted by California institutions. The number of degrees granted in Ontario (the province granting the largest number of degrees in Canada) exceeds the number granted in New York (the state granting the second largest number of degrees in the US), and institutions in the second and third highest ranked provinces in Canada (Québec and British Columbia) both granted many more degrees than those in the third highest ranked state in the US (Illinois). Institutions in Alberta, which ranked fourth among Canadian provinces, granted about the same number of degrees as institutions in Oregon, which ranked 14th in the US. Newfoundland, which was ranked fifth among Canadian provinces, was comparable in degrees granted to Rhode Island (ranked 18th in the US) and Missouri and New Jersey (ranked tied for 19th in the US). Institutions at each of the remaining five Canadian provinces granted less than ten degrees, and no degrees were granted in the provinces of Nova Scotia and Prince Edward Island. In the US, there were 18 jurisdictions altogether in which less than ten undergraduate degrees in linguistics were granted, and no degrees were granted in 11 jurisdictions (ten states and Puerto Rico).

Tables 14 and 15 list the institutions which granted one or more undergraduate degrees in linguistics in 1976-77 and in 1985-86 respectively. The institutions are rank ordered by number of degrees granted within the US and Canada for each of these academic years. In the US, UCLA was easily the first ranked institution in both academic years. Five other institutions finished in the top ten in both academic years: UC Berkeley, CSU Fullerton, Queens C CUNY, U Oregon and Georgetown U. Although more degrees were reported granted in 1976-77 (629) than in 1985-86 (591), many more institutions granted degrees in 1985-86 (96) than in 1976-77 (77). Thus a broader institutional base for future growth in undergraduate linguistics education in the US appears to have been laid.

In Canada, UQAM was the only one of the top five degree granting institutions in 1976-77 to be among in the top five in 1985-86. U Montréal, which was the first ranked institution in 1976-77, dropped to 13th in 1985-86, while U Toronto, which was the first ranked institution in 1985-86, did not report granting any undergraduate degrees at all in 1976-77. Both the total number of degrees granted and the number of institutions granting degrees in Canada increased between 1976-77 and 1985-86, from 159 to 244 and from 15 to 17 respectively.

Tables 16 and 17 present the number of undergraduate degrees in linguistics reported granted in 1976-77 and in 1985-86 by state and province, with the states and provinces ranked by number of degrees granted by their institutions. In the US, the top four ranked states were the same in both academic years: California, New York, Pennsylvania and Illinois, although the number of degrees granted in each of the three latter states declined considerably. Massachusetts replaced the District of Columbia as the fifth ranked jurisdiction in 1985-86; the former climbed from a tie for 14th place in 1976-77 and the latter dropped to 13th place in 1985-86. Just as the number of institutions granting degrees in 1985-86 was larger than the number doing so in 1976-77, so the number of jurisdictions whose institutions granted at least one degree grew from 28 in 1976-77 to 37 in 1985-86. In Canada, Ontario replaced Québec as the first ranked province in 1985-86. British Columbia rose from third to second rank and Québec fell from first to third. The number of provinces whose institutions granted at least one degree increased from six in 1976-77 to seven in 1985-86.

Tables 18-20 present information about enrollment based on responses to the LUC Questionnaire, and in the case of number of majors in linguistics enrolled, also on information obtained from the 1974 LSA Directory of Programs. Table 18 lists all institutions currently offering a major in linguistics, the number of majors reported enrolled in 1972-73 and the number of majors reported enrolled in 1985-86. The rank of each institution reporting enrollment figures is also given for each of the two academic years. In the US, the total number of majors reported enrolled increased from 1328 to 1914 (a 44% increase); and in Canada from 332 to 690 (a 108% increase). The number of institutions reporting enrollments of majors also rose in the US from 52 to 101 (a 94% increase) and in Canada from 9 to 16 (a 78% increase). In the US, the largest enrollment of linguistics majors in both academic years was reported by UCLA. In 1972-73, it was followed by UC San Diego, UC Berkeley, CSU Fullerton, Georgetown U, UC Irvine, CSU Dominguez Hills, Pennsylvania State U, U Michigan and Western Michigan U. In 1985-86, it was followed by CSU Northridge, Queens C CUNY, UC San Diego, CSU Fullerton, San Diego State U, UC Davis, Georgetown U, UC Santa Cruz, CSU Fresno, UC Irvine and U Minnesota (the last three institutions were tied for tenth rank). Thus six of the top ten ranked institutions for number of linguistics majors enrolled in 1972-73 were in California, as were eight of the top twelve in 1985-86. Of the 49 US institutions reporting enrollment of linguistics majors in both 1972-73 and 1985-86, 22 showed an increase, 24 a decrease, and 3 no change. In Canada, the largest enrollment of linguistics majors was reported at U Montréal in 1972-73 and at UQAM in 1985-86. These enrollment figures were also the largest for the US and Canada combined. In 1972-73, UQAM and Carleton U followed in that order; and in 1985-86, Carleton U and McGill followed in that order. McGill U did not report its enrollment of linguistics majors in 1972-73 and U Montréal did not do so in 1985-86. All seven Canadian institutions reporting enrollment of linguistics majors in both 1972-73 and 1985-86 showed substantial increases.

Table 19 lists the institutions currently offering undergraduate minors in linguistics, the number of minors enrolled in 1985-86 and each institution's rank. Of the 89 US institutions that offer a minor in linguistics, 66 reported their 1985-86 enrollments; the total reported US enrollment was 425. Of the 11 Canadian institutions that offer a minor in linguistics, 10 reported their 1985-86 enrollments; the total reported Canadian enrollment was 473. Four Canadian institutions reported a larger enrollment of linguistics minors than any US institution, and the fifth ranked Canadian institution was tied with the first ranked US institution. The first ranked US institution for enrollment of linguistics minors in 1985-86 was Georgetown U, followed by Rutgers U, Sonoma State U, UC San Diego and U Texas at Austin. The first ranked Canadian institution for enrollment of linguistics minors in 1985-86 was UQAM, followed by U Toronto, Memorial U Newfoundland, U Ottawa and York U.

Finally, Table 20 provides estimated total enrollment figures in undergraduate linguistics courses in a typical semester or quarter in the academic year 1985-86 for those institutions reporting them on the LUC Questionnaire, along with rankings of those institutions. In the US, 116 institutions reported such figures, for a total estimated enrollment of 25400. In Canada, 17 institutions reported such figures, for a total estimated enrollment of 10000. Thus US institutions accounted for 71.8% of the total reported enrollment in linguistics courses in 1985-86, and Canadian institutions for 28.2%. These percentages correspond closely to those for undergraduate degrees granted in linguistics in 1985-86 (see the end of the second paragraph of the discussion of Table 12 above). The first ranked US institution for total enrollment in linguistics courses in 1985-86 was UC San Diego, followed by San Diego State U, Ohio State U, UCLA, Oakland U, Iowa State U, Northeastern Illinois U, Queens C CUNY, U Wisconsin at Milwaukee, UC Berkeley, U Minnesota, U Massachusetts at Amherst and U Connecticut. All thirteen of these institutions reported enrolling at least 500 students in undergraduate linguistics courses in a typical semester or quarter in 1985-86. The first ranked Canadian institution was UQAM, followed by U Ottawa, U Toronto, U Victoria, Memorial U Newfoundland, Simon Fraser U and U New Brunswick. These seven institutions also reported enrolling at least 500 students in undergraduate linguistics courses in a typical semester or quarter in 1985-86.

Much further analysis of the information contained in the LSA Directory of Programs, the LUC questionnaires and the LUC catalog of linguistics programs is possible. However, the twenty pairs of tables and the discussion accompanying them in this report provide a quite detailed picture of the development and current status of undergraduate linguistics education in the US and Canada.

Table US1. Alphabetic Listing of US Institutions

Institution Name	City	State	D74	D78	D80	D82	D84	D87	Qst	
American U	Washington	DC	X	X	X	X	X	X		
Andrews U	Berrien Springs	MI	X	X						
Arizona State U	Tempe	AZ		X		X	X	X	X	
Assumption C	Worcester	MA		X						
Ball State U	Muncie	IN	X	X	X	X	X	X		
Barnard C of Columbia U	New York	NY	X	X	X	X	X	X	X	X
Bethel C	St Paul	MN		X			X			
Bob Jones U	Greenville	SC			X	X	X	X		
Boston C	Chestnut Hill	MA	X	X	X	X	X	X	X	X
Boston U	Boston	MA	X	X	X	X	X	X	X	X
Brandeis U	Waltham	MA	X	X	X	X	X	X	X	X
Brigham Young U	Provo	UT	X	X	X	X	X	X	X	X
Brooklyn C of CUNY	Brooklyn	NY		X	X	X	X	X	X	X
Brown U	Providence	RI	X	X	X	X	X	X	X	X
Bryn Mawr C	Bryn Mawr	PA		X					X	
Bucknell U	Lewisburg	PA		X	X	X	X	X	X	X
California State U, Dominguez Hills	Carson	CA	X	X	X	X	X	X	X	X
California State U, Fresno	Fresno	CA	X	X	X	X	X	X	X	
California State U, Fullerton	Fullerton	CA	X	X	X	X	X	X	X	X
California State U, Long Beach	Long Beach	CA	X	X	X	X	X	X	X	
California State U, Los Angeles	Los Angeles	CA	X							
California State U, Northridge	Northridge	CA	X	X	X	X	X	X	X	
Carleton C	Northfield	MN							X	
Case Western Reserve U	Cleveland	OH			X	X				
Central Connecticut State U	New Britain	CT	X	X	X	X	X	X	X	
Central Michigan U	Mount Pleasant	MI	X	X	X	X	X	X	X	
Central Missouri State U	Warrensburg	MO		X						
Central U of Iowa (Central C)	Pella	IA			X	X	X	X		X
Chicago State U	Chicago	IL							X	
City C of CUNY	New York	NY	X							
Claremont C (Pitzer C, Pomona C)	Claremont	CA		X	X	X	X	X	X	X
Cleveland State U	Cleveland	OH	X	X	X	X	X	X	X	X
C of William and Mary	Williamsburg	VA						X	X	X
Colorado College	Colorado Sprs	CO								X
Colorado State U	Fort Collins	CO		X	X					
Columbia U	New York	NY	X	X	X	X	X	X		
Cornell U	Ithaca	NY	X	X	X	X	X	X	X	X
CUNY Graduate Center	New York	NY		X	X	X	X	X		
Drew U	Madison	NJ	X	X	X	X	X	X	X	X
Duke U	Durham	NC	X		X	X	X	X	X	X
East Texas State U	Commerce	TX	X	X	X					
Eastern Michigan U	Ypsilanti	MI						X	X	
Florida Atlantic U	Boca Raton	FL	X	X	X	X	X	X	X	X
Florida International U	Miami	FL					X	X	X	
Gallaudet C	Washington	DC	X	X	X	X	X	X	X	
George Mason U	Fairfax	VA		X	X	X	X	X	X	
Georgetown U	Washington	DC	X	X	X	X	X	X	X	X
Georgia State U	Atlanta	GA		X						
Gordon C	Wenham	MA	X	X						
Hamilton C	Clinton	NY							X	X
Hampshire C	Amherst	MA	X	X	X	X	X	X		

Institution Name	City	State	D74	D78	D80	D82	D84	D87	Qst	Cat
Harvard U	Cambridge	MA	X	X	X	X	X	X	X	X
Hofstra U	Hempstead	NY	X	X	X					
Hope C	Holland	MI		X		X	X			
Howard U	Washington	DC	X	X	X	X				
Humboldt State U	Arcata	CA		X						
Idaho State U	Pocatello	ID			X	X				
Illinois Institute of Technology	Chicago	IL	X							
Illinois State U	Normal	IL								X
Indiana State U	Terre Haute	IN	X		X	X	X	X	X	X
Indiana U	Bloomington	IN	X	X	X	X	X	X	X	X
Inter American U	San German	PR	X	X	X	X	X	X		
Iowa State U of Science and Tech	Ames	IA	X	X	X	X	X	X	X	X
Kansas State U	Manhattan	KS	X	X						
Lehman C of CUNY	Bronx	NY	X	X	X	X	X	X	X	X
Louisiana State U	Baton Rouge	LA	X	X	X	X	X	X		X
Loyola U of Chicago	Chicago	IL			X	X	X			
Macalaster C	St Paul	MN	X	X	X	X	X	X	X	X
Marion C	Marion	IN	X							
Mary Washington C	Fredericksburg	VA	X							
Massachusetts Inst of Technology	Cambridge	MA	X	X	X	X	X	X	X	
Miami U	Oxford	OH	X	X	X	X	X	X		X
Michigan State U	East Lansing	MI	X	X	X	X	X	X	X	X
Middlebury C	Middlebury	VT					X	X	X	
Montclair State C	Upper Montclair	NJ	X	X	X	X	X	X	X	X
Morehead State U	Morehead	KY	X							
Nashville U Center	Nashville	TN	X	X						
New Mexico State U	Las Cruces	NM							X	
New York U	New York	NY	X	X	X	X	X	X		
North Texas State U	Denton	TX			X	X	X	X	X	
Northeastern Illinois U	Chicago	IL	X	X	X	X	X	X	X	X
Northeastern U	Boston	MA					X	X	X	X
Northern Arizona U	Flagstaff	AZ	X	X	X	X	X	X		
Northern Illinois U	DeKalb	IL	X	X	X	X	X	X		X
Northwestern U	Evanston	IL	X	X	X	X	X	X	X	X
Oakland U	Rochester	MI	X	X	X	X	X	X	X	X
Occidental C	Los Angeles	CA			X	X	X	X		
Ohio State U	Columbus	OH	X	X	X	X	X	X	X	X
Ohio U	Athens	OH	X	X	X	X	X	X	X	X
Oklahoma State U	Stillwater	OK	X		X	X	X	X		
Pennsylvania State U	University Park	PA	X	X	X	X	X	X	X	X
Princeton U	Princeton	NJ	X	X	X	X	X	X	X	X
Purdue U	West Lafayette	IN	X	X	X	X	X	X	X	X
Queens C of CUNY	Flushing	NY	X	X	X	X	X	X	X	X
Rice U	Houston	TX		X	X	X	X	X	X	X
Rutgers U	New Brunswick	NJ	X	X	X	X	X	X	X	X
San Diego State U	San Diego	CA	X	X	X	X	X	X	X	X
San Francisco State U	San Francisco	CA	X	X					X	
San Jose State U	San Jose	CA	X	X	X	X	X	X	X	X
School For International Training	Brattleboro	VT		X			X	X		
Sonoma State U	Rohnert Park	CA	X	X	X	X	X	X	X	X
Southern Illinois U at Carbondale	Carbondale	IL	X	X	X	X	X	X	X	X
Southern Illinois U at Edwardsville	Edwardsville	IL		X	X	X	X	X	X	X
Southwest Texas State U	San Marcos	TX		X	X					

Institution Name	City	State	D74	D78	D80	D82	D84	D87	Qst	Cat
St Cloud State U	St Cloud	MN			X	X	X	X		
Stanford U	Stanford	CA	X	X	X	X	X	X	X	X
State U of New York at Albany	Albany	NY		X	X	X	X	X	X	X
State U of New York at Binghamton	Binghamton	NY	X	X	X	X	X	X	X	X
State U of New York at Buffalo	Buffalo	NY	X	X	X	X	X	X	X	X
State U of New York at Geneseo	Geneseo	NY			X	X	X	X		
State U of New York at New Paltz	New Paltz	NY		X	X	X				
State U of New York at Oswego	Oswego	NY	X	X	X					
State U of New York at Stony Brook	Stony Brook	NY	X	X	X	X	X	X	X	X
Swarthmore C	Swarthmore	PA		X	X	X	X	X	X	X
Syracuse U	Syracuse	NY	X	X	X	X	X	X	X	X
Teachers C of Columbia U	New York	NY	X		X	X	X	X		
Temple U	Philadelphia	PA			X	X	X	X	X	X
Texas A&M U	College Station	TX	X	X		X	X	X	X	
Texas Tech U	Lubbock	TX		X	X	X		X		
Trenton State C	Trenton	NJ	X	X	X	X				
Trinity C	Washington	DC		X	X	X				
Trinity U	San Antonio	TX	X		X	X				
Tulane U	New Orleans	LA	X				X	X	X	
U of Alabama	University	AL		X	X	X	X	X	X	
U of Alabama at Birmingham	Birmingham	AL					X	X	X	X
U of Alaska	Fairbanks	AK		X	X	X	X	X	X	
U of Arizona	Tucson	AZ	X		X	X	X	X	X	X
U of Arkansas at Little Rock	Little Rock	AR						X		X
U of California, Berkeley	Berkeley	CA	X	X	X	X	X	X	X	X
U of California, Davis	Davis	CA	X	X	X	X	X	X	X	X
U of California, Irvine	Irvine	CA	X	X	X	X	X	X	X	X
U of California, Los Angeles	Los Angeles	CA	X	X	X	X	X	X	X	X
U of California, Riverside	Riverside	CA	X		X	X	X	X	X	X
U of California, San Diego	LaJolla	CA	X	X	X	X	X	X	X	X
U of California, Santa Barbara	Santa Barbara	CA	X		X	X	X	X	X	X
U of California, Santa Cruz	Santa Cruz	CA	X	X	X	X	X	X	X	X
U of Chicago	Chicago	IL	X	X	X	X	X	X	X	X
U of Cincinnati	Cincinnati	OH	X	X	X	X	X	X	X	
U of Colorado, Boulder	Boulder	CO	X	X	X	X	X	X	X	X
U of Connecticut	Storrs	CT	X	X	X	X	X	X	X	X
U of Delaware	Newark	DE					X	X		
U of Detroit	Detroit	MI	X							
U of Florida	Gainesville	FL	X	X	X	X	X	X		X
U of Georgia	Athens	GA	X	X	X	X	X	X	X	X
U of Hartford	West Hartford	CT	X	X						
U of Hawaii at Hilo	Hilo	HI	X		X	X	X	X	X	X
U of Hawaii at Manoa	Honolulu	HI	X	X	X	X	X	X		
U of Houston	Houston	TX	X					X		
U of Illinois	Urbana	IL	X	X	X	X	X	X		X
U of Illinois at Chicago	Chicago	IL	X	X	X	X	X	X	X	X
U of Iowa	Iowa City	IA	X	X	X	X	X	X	X	X
U of Kansas	Lawrence	KS	X	X	X	X	X	X	X	X
U of Kentucky	Lexington	KY		X	X	X	X	X		
U of Louisville	Louisville	KY			X	X	X	X		X
U of Maryland, Baltimore County	Catonsville	MD					X	X		
U of Maryland, College Park	College Park	MD	X	X		X	X	X	X	X
U of Massachusetts	Amherst	MA	X		X	X	X	X	X	X

Institution Name	City	State	D74	D78	D80	D82	D84	D87	Qst	Cat
U of Massachusetts at Boston	Boston	MA								X
U of Michigan	Ann Arbor	MI	X	X	X	X	X	X	X	X
U of Minnesota at Duluth	Duluth	MN	X	X	X	X		X		
U of Minnesota at Minneapolis	Minneapolis	MN	X	X	X	X	X	X	X	X
U of Missouri at Columbia	Columbia	MO	X	X	X	X	X	X	X	X
U of Montana	Missoula	MT	X	X	X	X	X	X	X	X
U of Nebraska at Lincoln	Lincoln	NE	X		X	X	X			
U of Nevada, Reno	Reno	NV	X	X	X	X	X	X		X
U of New Hampshire	Durham	NH	X	X	X	X	X	X	X	X
U of New Mexico	Albuquerque	NM	X	X	X	X	X	X	X	X
U of North Carolina	Chapel Hill	NC	X		X	X	X	X	X	X
U of Northern Iowa	Cedar Falls	IA	X	X	X		X	X		
U of Notre Dame	Notre Dame	IN		X						
U of Oklahoma	Norman	OK		X	X	X	X	X	X	X
U of Oregon	Eugene	OR	X	X	X	X	X	X	X	X
U of Pennsylvania	Philadelphia	PA	X	X	X	X	X	X	X	X
U of Pittsburgh	Pittsburgh	PA	X	X	X	X	X	X	X	X
U of Rochester	Rochester	NY	X	X	X	X	X	X	X	X
U of South Carolina	Columbia	SC		X	X	X	X	X		
U of South Florida	Tampa	FL	X	X	X	X	X	X		X
U of Southern California	Los Angeles	CA	X	X	X	X	X	X	X	X
U of Southern Mississippi	Hattiesburg	MS	X	X	X		X	X		
U of Texas at Arlington	Arlington	TX	X		X	X	X	X		
U of Texas at Austin	Austin	TX	X	X	X	X	X	X	X	X
U of Texas at El Paso	El Paso	TX	X	X	X	X	X	X	X	X
U of the Pacific	Stockton	CA	X		X	X	X	X	X	
U of Toledo	Toledo	OH	X	X	X	X	X	X	X	X
U of Utah	Salt Lake City	UT	X	X	X	X	X	X	X	X
U of Vermont	Burlington	VT	X	X	X	X	X	X	X	
U of Virginia	Charlottesville	VA	X	X	X	X	X	X	X	X
U of Washington	Seattle	WA	X	X	X	X	X	X	X	X
U of Wisconsin at Green Bay	Green Bay	WI		X	X	X	X	X	X	
U of Wisconsin at Madison	Madison	WI	X	X	X	X	X	X	X	X
U of Wisconsin at Milwaukee	Milwaukee	WI	X	X	X	X	X	X	X	X
Vanderbilt U	Nashville	TN			X	X	X	X	X	X
Washington State U	Pullman	WA		X	X	X	X	X		
Washington U	St Louis	MO	X	X	X	X	X	X		
Wayne State U	Detroit	MI	X	X	X	X	X	X	X	X
West Virginia U	Morgantown	WV			X	X	X	X	X	X
Western Michigan U	Kalamazoo	MI	X	X	X	X	X	X	X	X
Western Washington State C	Bellingham	WA	X							
Wichita State U	Wichita	KS		X	X					
Yale U	New Haven	CT	X	X	X	X	X	X	X	X
Youngstown State U	Youngstown	OH	X							
Total number of institutions		201	140	147	156	152	154	156	124	113

Key: Dnn = Listing in 19nn LSA Directory of Programs; Qst = Response to LUC Questionnaire; Cat = Entry in LUC Catalogue Prepared by Frank Heny

Table US2. Listing of US Institutions, by State

Institution Name	City	State	D74	D78	D80	D82	D84	D87	Qst	Cat
U of Alaska	Fairbanks	AK		X	X	X	X	X	X	
U of Alabama	University	AL		X	X	X	X	X	X	
U of Alabama at Birmingham	Birmingham	AL					X	X	X	X
U of Arkansas at Little Rock	Little Rock	AR						X		X
Arizona State U	Tempe	AZ		X		X	X	X	X	
Northern Arizona U	Flagstaff	AZ	X	X	X	X	X	X		
U of Arizona	Tucson	AZ	X		X	X	X	X	X	X
California State U, Dominguez Hills	Carson	CA	X	X	X	X	X	X	X	X
California State U, Fresno	Fresno	CA	X	X	X	X	X	X	X	
California State U, Fullerton	Fullerton	CA	X	X	X	X	X	X	X	X
California State U, Long Beach	Long Beach	CA	X	X	X	X	X	X	X	
California State U, Los Angeles	Los Angeles	CA	X							
California State U, Northridge	Northridge	CA	X	X	X	X	X	X	X	
Claremont C (Pitzer C, Pomona C)	Claremont	CA		X	X	X	X	X	X	X
Humboldt State U	Arcata	CA		X						
Occidental C	Los Angeles	CA			X	X	X	X		
San Diego State U	San Diego	CA	X	X	X	X	X	X	X	X
San Francisco State U	San Francisco	CA	X	X					X	
San Jose State U	San Jose	CA	X	X	X	X	X	X	X	X
Sonoma State U	Rohnert Park	CA	X	X	X	X	X	X	X	X
Stanford U	Stanford	CA	X	X	X	X	X	X	X	X
U of California, Berkeley	Berkeley	CA	X	X	X	X	X	X	X	X
U of California, Davis	Davis	CA	X	X	X	X	X	X	X	X
U of California, Irvine	Irvine	CA	X	X	X	X	X	X	X	X
U of California, Los Angeles	Los Angeles	CA	X	X	X	X	X	X	X	X
U of California, Riverside	Riverside	CA	X		X	X	X	X	X	X
U of California, San Diego	LaJolla	CA	X	X	X	X	X	X	X	X
U of California, Santa Barbara	Santa Barbara	CA	X		X	X	X	X	X	X
U of California, Santa Cruz	Santa Cruz	CA	X	X	X	X	X	X	X	X
U of Southern California	Los Angeles	CA	X	X	X	X	X	X	X	X
U of the Pacific	Stockton	CA	X		X	X	X	X	X	
Colorado C	Colorado Sprs	CO								X
Colorado State U	Fort Collins	CO		X	X					
U of Colorado, Boulder	Boulder	CO	X	X	X	X	X	X	X	X
Central Connecticut State U	New Britain	CT	X	X	X	X	X	X	X	X
U of Connecticut	Storrs	CT	X	X	X	X	X	X	X	X
U of Hartford	West Hartford	CT	X	X						
Yale U	New Haven	CT	X	X	X	X	X	X	X	X
American U	Washington	DC	X	X	X	X	X	X		
Gallaudet C	Washington	DC	X	X	X	X	X	X	X	
Georgetown U	Washington	DC	X	X	X	X	X	X	X	X
Howard U	Washington	DC	X	X	X	X				
Trinity C	Washington	DC		X	X	X				
U of Delaware	Newark	DE					X	X		
Florida Atlantic U	Boca Raton	FL	X	X	X	X	X	X	X	X
Florida International U	Miami	FL					X	X	X	
U of Florida	Gainesville	FL	X	X	X	X	X	X		X
U of South Florida	Tampa	FL	X	X	X	X	X	X		X
Georgia State U	Atlanta	GA		X						
U of Georgia	Athens	GA	X	X	X	X	X	X	X	X
U of Hawaii at Hilo	Hilo	HI	X		X	X	X	X	X	X
U of Hawaii at Manoa	Honolulu	HI	X	X	X	X	X	X		

Institution Name	City	State	D74	D78	D80	D82	D84	D87	Qst	Cat
Central U of Iowa (Central C)	Pella	IA			X	X	X	X		X
Iowa State U of Science and Tech	Ames	IA	X	X	X	X	X	X	X	X
U of Iowa	Iowa City	IA	X	X	X	X	X	X	X	X
U of Northern Iowa	Cedar Falls	IA	X	X	X		X	X		
Idaho State U	Pocatello	ID			X	X				
Chicago State U	Chicago	IL							X	
Illinois Institute of Technology	Chicago	IL	X							
Illinois State U	Normal	IL								X
Loyola U of Chicago	Chicago	IL			X	X	X			
Northeastern Illinois U	Chicago	IL	X	X	X	X	X	X	X	X
Northern Illinois U	DeKalb	IL	X	X	X	X	X	X		X
Northwestern U	Evanston	IL	X	X	X	X	X	X	X	X
Southern Illinois U at Carbondale	Carbondale	IL	X	X	X	X	X	X	X	X
Southern Illinois U at Edwardsville	Edwardsville	IL		X	X	X	X	X	X	X
U of Chicago	Chicago	IL	X	X	X	X	X	X	X	X
U of Illinois	Urbana	IL	X	X	X	X	X	X		X
U of Illinois at Chicago	Chicago	IL	X	X	X	X	X	X	X	X
Ball State U	Muncie	IN	X	X	X	X	X	X		
Indiana State U	Terre Haute	IN	X		X	X	X	X	X	X
Indiana U	Bloomington	IN	X	X	X	X	X	X	X	X
Marion C	Marion	IN	X							
Purdue U	West Lafayette	IN	X	X	X	X	X	X	X	X
U of Notre Dame	Notre Dame	IN		X						
Kansas State U	Manhattan	KS	X	X						
U of Kansas	Lawrence	KS	X	X	X	X	X	X	X	X
Wichita State U	Wichita	KS		X	X					
Morehead State U	Morehead	KY	X							
U of Kentucky	Lexington	KY		X	X	X	X	X		
U of Louisville	Louisville	KY			X	X	X	X		X
Louisiana State U	Baton Rouge	LA	X	X	X	X	X	X		X
Tulane U	New Orleans	LA	X				X	X	X	
Assumption C	Worcester	MA		X						
Boston C	Chestnut Hill	MA	X	X	X	X	X	X	X	X
Boston U	Boston	MA	X	X	X	X	X	X	X	X
Brandeis U	Waltham	MA	X	X	X	X	X	X	X	X
Gordon C	Wenham	MA	X	X						
Hampshire C	Amherst	MA	X	X	X	X	X	X		
Harvard U	Cambridge	MA	X	X	X	X	X	X	X	X
Massachusetts Inst of Technology	Cambridge	MA	X	X	X	X	X	X	X	
Northeastern U	Boston	MA					X	X	X	X
U of Massachusetts	Amherst	MA	X		X	X	X	X	X	X
U of Massachusetts at Boston	Boston	MA								X
U of Maryland, Baltimore County	Catonsville	MD					X	X		
U of Maryland, College Park	College Park	MD	X	X		X	X	X	X	X
Andrews U	Berrien Springs	MI	X	X						
Central Michigan U	Mount Pleasant	MI	X	X	X	X	X	X	X	
Eastern Michigan U	Ypsilanti	MI						X	X	
Hope C	Holland	MI		X		X	X			
Michigan State U	East Lansing	MI	X	X	X	X	X	X	X	X
Oakland U	Rochester	MI	X	X	X	X	X	X	X	X
U of Detroit	Detroit	MI	X							
U of Michigan	Ann Arbor	MI	X	X	X	X	X	X	X	X
Wayne State U	Detroit	MI	X	X	X	X	X	X	X	X
Western Michigan U	Kalamazoo	MI	X	X	X	X	X	X	X	X

Institution Name	City	State	D74	D78	D80	D82	D84	D87	Qst	Ca
Bethel C	St Paul	MN		X			X			
Carleton C	Northfield	MN							X	
Macalaster C	St Paul	MN	X	X	X	X	X	X	X	X
St Cloud State U	St Cloud	MN			X	X	X	X		
U of Minnesota at Duluth	Duluth	MN	X	X	X	X		X		
U of Minnesota at Minneapolis	Minneapolis	MN	X	X	X	X	X	X	X	X
Central Missouri State U	Warrensburg	MO		X						
U of Missouri at Columbia	Columbia	MO	X	X	X	X	X	X	X	X
Washington U	St Louis	MO	X	X	X	X	X	X		
U of Southern Mississippi	Hattiesburg	MS	X	X	X		X	X		
U of Montana	Missoula	MT	X	X	X	X	X	X	X	X
Duke U	Durham	NC	X		X	X	X	X	X	X
U of North Carolina	Chapel Hill	NC	X		X	X	X	X	X	X
U of Nebraska at Lincoln	Lincoln	NE	X		X	X	X			
U of New Hampshire	Durham	NH	X	X	X	X	X	X	X	X
Drew U	Madison	NJ	X	X	X	X	X	X	X	X
Montclair State C	Upper Montclair	NJ	X	X	X	X	X	X	X	X
Princeton U	Princeton	NJ	X	X	X	X	X	X	X	X
Rutgers U	New Brunswick	NJ	X	X	X	X	X	X	X	X
Trenton State C	Trenton	NJ	X	X	X	X				
New Mexico State U	Las Cruces	NM							X	
U of New Mexico	Albuquerque	NM	X	X	X	X	X	X	X	X
U of Nevada, Reno	Reno	NV	X	X	X	X	X	X		X
Barnard C of Columbia U	New York	NY	X	X	X	X	X	X	X	
Brooklyn C of CUNY	Brooklyn	NY		X	X	X	X	X	X	X
City C of CUNY	New York	NY	X							
Columbia U	New York	NY	X	X	X	X	X	X		X
Cornell U	Ithaca	NY	X	X	X	X	X	X	X	X
CUNY Graduate Center	New York	NY		X	X	X	X	X		
Hamilton C	Clinton	NY							X	X
Hofstra U	Hempstead, LI	NY	X	X	X					
Lehman C of CUNY	Bronx	NY	X	X	X	X	X	X	X	X
New York U	New York	NY	X	X	X	X	X	X		
Queens C of CUNY	Flushing	NY	X	X	X	X	X	X	X	X
State U of New York at Albany	Albany	NY		X	X	X	X	X	X	X
State U of New York at Binghamton	Binghamton	NY	X	X	X	X	X	X	X	X
State U of New York at Buffalo	Buffalo	NY	X	X	X	X	X	X	X	X
State U of New York at Geneseo	Geneseo	NY			X	X	X	X		
State U of New York at New Paltz	New Paltz	NY		X	X	X				
State U of New York at Oswego	Oswego	NY	X	X	X					
State U of New York at Stony Brook	Stony Brook	NY	X	X	X	X	X	X	X	X
Syracuse U	Syracuse	NY	X	X	X	X	X	X	X	X
Teachers C of Columbia U	New York	NY	X		X	X	X	X		
U of Rochester	Rochester	NY	X	X	X	X	X	X	X	X
Case Western Reserve U	Cleveland	OH			X	X				
Cleveland State U	Cleveland	OH	X	X	X	X	X	X	X	X
Miami U	Oxford	OH	X	X	X	X	X	X		X
Ohio State U	Columbus	OH	X	X	X	X	X	X	X	X
Ohio U	Athens	OH	X	X	X	X	X	X	X	X
U of Cincinnati	Cincinnati	OH	X	X	X	X	X	X	X	
U of Toledo	Toledo	OH	X	X	X	X	X	X	X	X
Youngstown State U	Youngstown	OH	X							

Institution Name	City	State	D74	D78	D80	D82	D84	D87	Qst	Cat
Oklahoma State U	Stillwater	OK	X		X	X	X	X		
U of Oklahoma	Norman	OK		X	X	X	X	X	X	X
U of Oregon	Eugene	OR	X	X	X	X	X	X	X	X
Bryn Mawr C	Bryn Mawr	PA		X					X	
Bucknell U	Lewisburg	PA		X	X	X	X	X	X	X
Pennsylvania State U	University Park	PA	X	X	X	X	X	X	X	X
Swarthmore C	Swarthmore	PA		X	X	X	X	X	X	X
Temple U	Philadelphia	PA			X	X	X	X	X	X
U of Pennsylvania	Philadelphia	PA	X	X	X	X	X	X	X	X
U of Pittsburgh	Pittsburgh	PA	X	X	X	X	X	X	X	X
Inter American U	San German	PR	X	X	X	X	X	X		
Brown U	Providence	RI	X	X	X	X	X	X	X	X
Bob Jones U	Greenville	SC			X	X	X	X		
U of South Carolina	Columbia	SC		X	X	X	X	X		
Nashville U Center	Nashville	TN	X	X						
Vanderbilt U	Nashville	TN			X	X	X	X	X	X
East Texas State U	Commerce	TX	X	X	X					
North Texas State U	Denton	TX			X	X	X	X	X	
Rice U	Houston	TX		X	X	X	X	X	X	X
Southwest Texas State U	San Marcos	TX		X	X					
Texas A&M U	College Station	TX	X	X		X	X	X	X	
Texas Tech U	Lubbock	TX		X	X	X		X		
Trinity U	San Antonio	TX	X		X	X				
U of Houston	Houston	TX	X					X		
U of Texas at Arlington	Arlington	TX	X		X	X	X	X		
U of Texas at Austin	Austin	TX	X	X	X	X	X	X	X	X
U of Texas at El Paso	El Paso	TX	X	X	X	X	X	X	X	X
Brigham Young U	Provo	UT	X	X	X	X	X	X	X	X
U of Utah	Salt Lake City	UT	X	X	X	X	X	X	X	X
C of William and Mary	Williamsburg	VA						X	X	X
George Mason U	Fairfax	VA		X	X	X	X	X	X	
Mary Washington C	Fredericksburg	VA	X							
U of Virginia	Charlottesville	VA	X	X	X	X	X	X	X	X
Middlebury C	Middlebury	VT					X	X	X	
School for International Training	Brattleboro	VT		X			X	X		
U of Vermont	Burlington	VT	X	X	X	X	X	X	X	
U of Washington	Seattle	WA	X	X	X	X	X	X	X	X
Washington State U	Pullman	WA		X	X	X	X	X		
Western Washington State C	Bellingham	WA	X							
U of Wisconsin at Green Bay	Green Bay	WI		X	X	X	X	X	X	
U of Wisconsin at Madison	Madison	WI	X	X	X	X	X	X	X	X
U of Wisconsin at Milwaukee	Milwaukee	WI	X	X	X	X	X	X	X	X
West Virginia U	Morgantown	WV			X	X	X	X	X	X

Key: Dnn = Listing in 19nn LSA Directory of Programs; Qst = Response to LUC Questionnaire; Cat = Entry in LUC Catalogue Prepared by Frank Heny

Table US3. Last Reported Status of Linguistics at US Institutions Not Listed in the 1987 LSA Directory of Programs and Not Responding to the LUC Project

Institution Name	State	Ling Dept	Ling Prog	Ling Major	Ling Joint Major	Ling Minor	Ling MA	Ling PhD	Last Entry Year
Andrews U	MI				X				1978
Assumption C	MA					X			1978
Bethel C	MN	X		X					1984
California State U, Los Angeles	CA				X				1974
Case Western Reserve U	OH		X			X			1982
Central Missouri State U	MO		X	X					1978
City C of CUNY	NY		X	X	X				1974
Colorado State U	CO		X				X		1980
East Texas State U	TX		X	X			X	X	1980
Georgia State U	GA					X			1978
Gordon C	MA	X			X				1978
Hofstra U	NY		X			X			1980
Hope C	MI		X			X			1984
Howard U	DC					X			1982
Humboldt State U	CA			X					1978
Idaho State U	ID				X				1982
Illinois Inst of Technology	IL		X				X	X	1974
Kansas State U	KS		X	X					1978
Loyola U of Chicago	IL		X	X		X			1984
Marion C	IN	X		X		X			1974
Mary Washington C	VA		X	X					1974
Morehead State U	KY				X				1974
Nashville U Center	TN		X			X			1978
Southwest Texas State U	TX		X			X			1980
State U of New York at New Paltz	NY		X	X		X			1982
State U of New York at Oswego	NY		X	X					1980
Trenton State C	NJ		X			X			1982
Trinity C	DC	X				X			1982
Trinity U	TX				X				1982
U of Detroit	MI	X		X			X		1974
U of Hartford	CT		X	X	X				1978
U of Nebraska at Lincoln	NE		X	X					1984
U of Notre Dame	IN		X		X				1978
Western Washington State C	WA		X			X			1974
Wichita State U	KS		X	X					1980
Youngstown State U	OH		X			X			1974
Total number of institutions	36	5	22	15	9	15	4	2	

Last Entry Year	№ of Institutions
1974	9
1978	10
1980	6

Last Entry Year	№ of Institutions
1982	7
1984	4
Total	36

Table US4. Status of Linguistics at US Institutions Listed in the 1987 LSA Directory of Programs or Responding to the LUC Project

Institution Name	State	Ling Dept	Ling Prog	Ling Major	Ling Joint Major	Ling Minor	Ling MA	Ling PhD
American U	DC		X				X	
Arizona State U	AZ		X				X	
Ball State U	IN		X				X	
Barnard C of Columbia U	NY	X		X		X		
Bob Jones U	SC	X						
Boston C	MA		X	X			X	
Boston U	MA		X					
Brandeis U	MA		X	X		X		X
Brigham Young U	UT	X		X		X	X	
Brooklyn C of CUNY	NY		X	X	X	X		
Brown U	RI	X		X			X	X
Bryn Mawr C	PA							
Bucknell U	PA		X	X		X		
CUNY Graduate Center	NY		X				X	X
California State U, Dominguez Hills	CA		X	X	X	X	X	
California State U, Fresno	CA	X		X		X	X	
California State U, Fullerton	CA	X		X		X	X	
California State U, Long Beach	CA		X	X	X	X	X	
California State U, Northridge	CA		X	X		X	X	
Carleton C	MN		X					
Central Connecticut State U	CT		X			X		
Central Michigan U	MI		X	X			X	
Central U of Iowa (Central C)	IA		X	X		X		
Chicago State U	IL							
Claremont C (Pitzer C, Pomona C)	CA		X	X				
Cleveland State U	OH		X	X		X		
C of William and Mary	VA		X	X		X		
Colorado C	CO		X			X		
Columbia U	NY	X					X	X
Cornell U	NY	X		X			X	X
Drew U	NJ		X			X		
Duke U	NC		X	X				
Eastern Michigan U	MI		X	X	X	X	X	
Florida Atlantic U	FL	X		X	X		X	
Florida International U	FL		X		X		X	
Gallaudet C	DC	X				X	X	
George Mason U	VA		X				X	
Georgetown U	DC	X		X		X	X	X
Hamilton C	NY		X	X				
Hampshire C	MA		X		X			
Harvard U	MA	X		X		X	X	X
Illinois State U	IL				X			
Indiana State U	IN					X		
Indiana U	IN	X		X		X	X	X
Inter American U	PR							
Iowa State U of Science and Tech	IA		X	X		X		
Lehman C of CUNY	NY		X	X		X		
Louisiana State U	LA		X				X	

Institution Name	State	Ling Dept	Ling Prog	Ling Major	Ling Joint Major	Ling Minor	Ling MA	Ling PhD
Macalaster C	MN	X		X	X			
Massachusetts Inst of Technology	MA	X						X
Miami U	OH		X	X				
Michigan State U	MI	X		X			X	X
Middlebury C	VT					X		
Montclair State C	NJ	X		X		X		
New Mexico State U	NM		X			X		
New York U	NY	X		X			X	X
North Texas State U	TX		X				X	
Northeastern Illinois U	IL	X		X		X	X	
Northeastern U	MA		X	X		X		
Northern Arizona U	AZ		X					
Northern Illinois U	IL		X			X		
Northwestern U	IL	X		X			X	X
Oakland U	MI	X		X	X	X	X	
Occidental C	CA	X			X	X		
Ohio State U	OH	X		X		X	X	X
Ohio U	OH	X		X		X	X	
Oklahoma State U	OK		X					
Pennsylvania State U	PA		X	X		X	X	
Princeton U	NJ		X		X			X
Purdue U	IN		X	X		X		
Queens C of CUNY	NY	X		X		X	X	
Rice U	TX	X		X			X	X
Rutgers U	NJ		X	X		X		
San Diego State U	CA	X		X		X	X	
San Francisco State U	CA		X	X	X	X		
San Jose State U	CA		X			X	X	
School For International Training	VT						X	
Sonoma State U	CA		X			X		
Southern Illinois U at Carbondale	IL	X		X		X	X	
Southern Illinois U at Edwardsville	IL		X			X	X	
St Cloud State U	MN				X			
Stanford U	CA	X		X			X	X
State U of New York at Albany	NY		X	X	X		X	
State U of New York at Binghamton	NY		X	X		X	X	
State U of New York at Buffalo	NY	X		X		X	X	X
State U of New York at Geneseo	NY		X			X		
State U of New York at Stony Brook	NY	X		X		X	X	
Swarthmore C	PA		X	X		X		
Syracuse U	NY		X	X		X	X	
Teachers C of Columbia U	NY		X				X	
Temple U	PA		X	X		X	X	
Texas A&M U	TX		X			X	X	X
Texas Tech U	TX		X				X	
Tulane U	LA		X	X				X

Institution Name	State	Ling Dept	Ling Prog	Ling Major	Ling Joint Major	Ling Minor	Ling MA	Ling PhD
U of Alabama	AL		X				X	X
U of Alabama at Birmingham	AL		X	X		X		
U of Alaska	AK		X	X		X		
U of Arizona	AZ	X		X		X	X	X
U of Arkansas at Little Rock	AR		X			X		
U of California, Berkeley	CA	X		X			X	X
U of California, Davis	CA		X	X		X	X	
U of California, Irvine	CA		X	X		X		
U of California, Los Angeles	CA	X		X			X	X
U of California, Riverside	CA		X	X				
U of California, San Diego	CA	X		X		X	X	X
U of California, Santa Barbara	CA		X	X				
U of California, Santa Cruz	CA	X		X		X		X
U of Chicago	IL	X		X			X	X
U of Cincinnati	OH		X	X				
U of Colorado, Boulder	CO	X		X			X	X
U of Connecticut	CT	X		X	X		X	X
U of Delaware	DE	X			X	X		X
U of Florida	FL		X				X	X
U of Georgia	GA	X		X	X	X	X	X
U of Hawaii at Hilo	HI		X	X				
U of Hawaii at Manoa	HI	X		X			X	X
U of Houston	TX		X				X	
U of Illinois	IL	X			X		X	X
U of Illinois at Chicago	IL	X			X		X	
U of Iowa	IA	X		X		X	X	X
U of Kansas	KS	X		X			X	X
U of Kentucky	KY		X	X				
U of Louisville	KY		X	X		X	X	
U of Maryland, Baltimore County	MD	X			X	X	X	
U of Maryland, College Park	MD		X	X		X	X	X
U of Massachusetts	MA	X		X	X	X	X	X
U of Massachusetts at Boston	MA		X	X				
U of Michigan	MI		X	X		X	X	X
U of Minnesota at Duluth	MN		X		X	X		
U of Minnesota at Minneapolis	MN	X		X		X	X	X
U of Missouri at Columbia	MO		X	X			X	
U of Montana	MT		X	X	X		X	
U of Nevada, Reno	NV				X	X		
U of New Hampshire	NH		X	X		X	X	
U of New Mexico	NM	X		X		X	X	X
U of North Carolina	NC		X	X	X	X	X	X
U of Northern Iowa	IA		X		X			
U of Oklahoma	OK	X		X		X		
U of Oregon	OR	X		X		X	X	X
U of Pennsylvania	PA	X		X				
U of Pittsburgh	PA	X		X			X	X
U of Rochester	NY	X		X			X	X

Institution Name	State	Ling Dept	Ling Prog	Ling Major	Ling Joint Major	Ling Minor	Ling MA	Ling PhD
U of South Carolina	SC		X				X	X
U of South Florida	FL		X			X	X	
U of Southern California	CA	X		X		X	X	X
U of Southern Mississippi	MS		X		X			
U of Texas at Arlington	TX	X					X	
U of Texas at Austin	TX	X		X		X	X	X
U of Texas at El Paso	TX	X		X		X	X	
U of Toledo	OH		X	X				
U of Utah	UT		X	X		X	X	
U of Vermont	VT		X	X	X	X		
U of Virginia	VA		X	X		X	X	
U of Washington	WA	X		X			X	X
U of Wisconsin at Green Bay	WI			X	X	X		
U of Wisconsin at Madison	WI	X		X			X	X
U of Wisconsin at Milwaukee	WI	X		X		X		
U of the Pacific	CA		X	X				
Vanderbilt U	TN		X		X			
Washington State U	WA	X		X				
Washington U	MO		X	X			X	
Wayne State U	MI		X	X		X	X	
West Virginia U	WV		X	X		X	X	
Western Michigan U	MI	X		X		X	X	
Yale U	CT	X		X		X		X
Total number of institutions	165	65	91	110	31	89	95	50

Table US5. US Institutions with Departments of Linguistics

Institution Name	State	Department Name	Year Estab
Barnard C of Columbia U	NY	Linguistics	1967
Bob Jones U	SC	Linguistics	1966
Brigham Young U	UT	Linguistics and TESL	b1972
Brown U	RI	Cognitive and Linguistic Sciences	1986
California State U, Fresno	CA	Linguistics	1968
California State U, Fullerton	CA	Linguistics	1966
Columbia U	NY	Linguistics	b1972
Cornell U	NY	Modern Languages and Linguistics	1946
Florida Atlantic U	FL	Languages and Linguistics	1964
Gallaudet C	DC	Linguistics and Interpreting	b1972
Georgetown U	DC	Linguistics	1949
Harvard U	MA	Linguistics	1962
Indiana U	IN	Linguistics	1963
Macalaster C	MN	Linguistics	1977
Massachusetts Inst of Technology	MA	Linguistics and Philosophy	1961
Michigan State U	MI	Linguistics & Asian & African Langs	1964
Montclair State C	NJ	Linguistics	1971
New York U	NY	Linguistics	1968
Northeastern Illinois U	IL	Linguistics	b1972
Northwestern U	IL	Linguistics	1965
Oakland U	MI	Linguistics	1970
Occidental C	CA	Languages and Linguistics	1964
Ohio State U	OH	Linguistics	1967
Ohio U	OH	Linguistics	1970
Queens C of CUNY	NY	Linguistics	1967
Rice U	TX	Linguistics and Semiotics	1982
San Diego State U	CA	Linguistics	1972
Southern Illinois U at Carbondale	IL	Linguistics	1970
Stanford U	CA	Linguistics	1973
State U of New York at Buffalo	NY	Linguistics	1968
State U of New York at Stony Brook	NY	Linguistics	1970
U of Arizona	AZ	Linguistics	b1980
U of California, Berkeley	CA	Linguistics	1952
U of California, Los Angeles	CA	Linguistics	1966
U of California, San Diego	CA	Linguistics	1965
U of California, Santa Cruz	CA	Linguistics (Board of Studies)	b1972
U of Chicago	IL	Linguistics	1935
U of Colorado, Boulder	CO	Linguistics	1968
U of Connecticut	CT	Linguistics	1967
U of Delaware	DE	Linguistics	1985
U of Georgia	GA	Anthropology and Linguistics	1966
U of Hawaii at Manoa	HI	Linguistics	1963
U of Illinois	IL	Linguistics	1965
U of Illinois at Chicago	IL	Linguistics	1973
U of Iowa	IA	Linguistics	1970
U of Kansas	KS	Linguistics	1968
U of Maryland, Baltimore County	MD	Modern Languages and Linguistics	1976
U of Massachusetts	MA	Linguistics	1971
U of Minnesota at Minneapolis	MN	Linguistics	1966

Institution Name	State	Department Name	Year Estab
U of New Mexico	NM	Linguistics	1973
U of Oklahoma	OK	Modern Langs, Lits & Linguistics	1978
U of Oregon	OR	Linguistics	1976
U of Pennsylvania	PA	Linguistics	1945
U of Pittsburgh	PA	Linguistics	1964
U of Rochester	NY	Foreign Langs, Lits & Linguistics	b1972
U of Southern California	CA	Linguistics	1974
U of Texas at Arlington	TX	Foreign Languages and Linguistics	1974
U of Texas at Austin	TX	Linguistics	1964
U of Texas at El Paso	TX	Languages and Linguistics	1971
U of Washington	WA	Linguistics	1962
U of Wisconsin at Madison	WI	Linguistics	1954
U of Wisconsin at Milwaukee	WI	Linguistics	1960
Washington State U	WA	General Studies, Linguistics Option	1966
Western Michigan U	MI	Languages and Linguistics	1981
Yale U	CT	Linguistics	1961

Key: b19nn = Established by 19nn

Year Estab	Nº of Depts
1935-39	1
1940-44	0
1945-49	3
1950-54	2
1955-59	0
1960-64	12
1965-69	18

Year Estab	Nº of Depts
by 1972	6
1970-74	14
1975-79	4
1980-84	3
1985-present	2
Total	65

Other Discipline, if any	Nº of Departments
none	49
Languages	10
Anthropology	1
Cognitive Science	1
Interpreting	1
Philosophy	1
Semiotics	1
TESL	1
Total	65

Table US6. US Institutions with Programs in Linguistics

Institution Name	State	Program Name	Year Estab
American U	DC	Graduate Linguistics	1962
Arizona State U	AZ	Interdisciplinary Linguistics	1984
Ball State U	IN	Applied Linguistics	1969
Boston C	MA	Linguistics	1968
Boston U	MA	Committee on Linguistics	1965
Brandeis U	MA	Linguistics and Cognitive Science	b1984
Brooklyn C of CUNY	NY	Linguistics	1975
Bucknell U	PA	Linguistics	1968
CUNY Graduate Center	NY	Linguistics	1971
California State U, Dominguez Hills	CA	Linguistics	1966
California State U, Long Beach	CA	Interdisciplinary Linguistics	1968
California State U, Northridge	CA	Interdisciplinary Linguistics	1969
Carleton C	MN	Linguistics	1987
Central Connecticut State U	CT	Linguistics	b1972
Central Michigan U	MI	Interdisciplinary Linguistics	1972
Central U of Iowa (Central C)	IA	Linguistics	1965
Claremont C (Pitzer C, Pomona C)	CA	Joint Linguistics	1974
Cleveland State U	OH	Linguistics	1980
C of William and Mary	VA	Linguistics	1976
Colorado C	CO	Linguistics	b1987
Drew U	NJ	Linguistics	1979
Duke U	NC	Interdepartmental Comm on Linguistics	1965
Eastern Michigan U	MI	Language and Linguistics Committee	1982
Florida International U	FL	Linguistics	b1980
George Mason U	VA	Linguistics	1980
Hamilton C	NY	Linguistics	b1987
Hampshire C	MA	Linguistics	1971
Iowa State U of Science and Tech	IA	Cross-Disciplinary Linguistics	1974
Lehman C of CUNY	NY	Interdepartmental Linguistics	1972
Louisiana State U	LA	Interdepartmental Linguistics	1951
Miami U	OH	Linguistics	1968
New Mexico State U	NM	Linguistics	b1987
North Texas State U	TX	Linguistics	b1978
Northeastern U	MA	Linguistics	1980
Northern Arizona U	AZ	Committee on Linguistics	1967
Northern Illinois U	IL	Interdepartmental Linguistics	1970
Oklahoma State U	OK	Interdisciplinary Linguistics	1972
Pennsylvania State U	PA	Linguistics	1970
Princeton U	NJ	Linguistics	1961
Purdue U	IN	Interdepartmental Linguistics	1979
Rutgers U	NJ	Linguistics	1971
San Francisco State U	CA	Linguistics	b1972
San Jose State U	CA	Linguistics	1969
Sonoma State U	CA	Linguistics	1973
Southern Illinois U at Edwardsville	IL	Linguistics	b1976
State U of New York at Albany	NY	Linguistics	1972
State U of New York at Binghamton	NY	Linguistics	1967
State U of New York at Geneseo	NY	Linguistics	b1978
Swarthmore C	PA	Linguistics	1970
Syracuse U	NY	Interdisciplinary Linguistic Studies	1978
Teachers C of Columbia U	NY	Applied Linguistics	1970

Institution Name	State	Program Name	Year Estab
Temple U	PA	Linguistics	1978
Texas A&M U	TX	Linguistics	1972
Texas Tech U	TX	Interdepartmental Linguistics	1970
Tulane U	LA	Linguistics	1972
U of Alabama	AL	Ad Hoc Interdepartmental Linguistics	b1976
U of Alabama at Birmingham	AL	Linguistics	b1982
U of Alaska	AK	Linguistics	1986
U of Arkansas at Little Rock	AR	Linguistics	1983
U of California, Davis	CA	Interdepartmental Linguistics	1965
U of California, Irvine	CA	Linguistics	1970
U of California, Riverside	CA	Linguistics	1969
U of California, Santa Barbara	CA	Linguistics	1967
U of Cincinnati	OH	Linguistics	1974
U of Florida	FL	Interdepartmental Linguistics	1970
U of Hawaii at Hilo	HI	Linguistics	1972
U of Houston	TX	Linguistics	1983
U of Kentucky	KY	Linguistics	1972
U of Louisville	KY	Interdisciplinary Linguistics	1974
U of Maryland, College Park	MD	Linguistics	1984
U of Massachusetts at Boston	MA	Linguistics	b1987
U of Michigan	MI	Linguistics	1985
U of Minnesota at Duluth	MN	Linguistics	1978
U of Missouri at Columbia	MO	Linguistics Area	1968
U of Montana	MT	Linguistics	1973
U of New Hampshire	NH	Interdepartmental Linguistics	b1972
U of North Carolina	NC	Curriculum in Linguistics	1981
U of Northern Iowa	IA	TESOL/Linguistics Section	1955
U of South Carolina	SC	Linguistics	b1976
U of South Florida	FL	Linguistics	1968
U of Southern Mississippi	MS	Linguistic Emphasis	b1972
U of Toledo	OH	Linguistics	1971
U of Utah	UT	Linguistics	1963
U of Vermont	VT	Interdepartmental Linguistics	1969
U of Virginia	VA	Interdepartmental Linguistics	1978
U of Wisconsin at Green Bay	WI	Communication Processes	1972
U of the Pacific	CA	Undergraduate Linguistics	1972
Vanderbilt U	TN	Linguistics	1978
Washington U	MO	Linguistics Area	1966
Wayne State U	MI	Linguistics	1973
West Virginia U	WV	Linguistics	b1978

Key: b19nn = Established by 19nn

Year Estab	Nº of Progs
1950-54	1
1955-59	1
1960-64	3
1965-69	20
by 1972	4

Year Estab	Nº of Progs
1970-74	28
1975-79	15
1980-84	12
1985-present	7
Total	91

Table US7. Host Departments for US Programs in Linguistics

Institution Name	State	Host Department
American U	DC	Language and Foreign Studies
Arizona State U	AZ	Anthropology, English, Foreign Languages
Ball State U	IN	English
Boston C	MA	Slavic and Eastern Languages
Brandeis U	MA	Psychology
Bucknell U	PA	Modern Languages
Central Connecticut State U	CT	English
Central U of Iowa (Central C)	IA	English
C of William and Mary	VA	English
Colorado C	CO	Anthropology and General Studies
Eastern Michigan U	MI	English
Florida International U	FL	English and Modern Languages
George Mason U	VA	English
Miami U	OH	English
North Texas State U	TX	English
Northern Illinois U	IL	English
Oklahoma State U	OK	English
Pennsylvania State U	PA	Psychology
San Francisco State U	CA	English
San Jose State U	CA	English
Texas A&M U	TX	English
Tulane U	LA	Anthropology
U of Alabama	AL	English
U of Alabama at Birmingham	AL	English
U of Alaska	AK	Alaska Native Languages Program
U of Arkansas at Little Rock	AR	English
U of Minnesota at Duluth	MN	English
U of Missouri at Columbia	MO	Anthropology
U of Northern Iowa	IA	English
U of Vermont	VT	English
U of Virginia	VA	Slavic Languages and Linguistics
U of the Pacific	CA	English
West Virginia U	WV	Foreign Languages

Type of Host Dept	№
English	20
other languages	6
Anthropology	3
Psychology	2
mixed	2
Total	33

Table US8. Previous Status of Linguistics Departments or Programs at US Institutions

Institution Name	State	Status	Year Estab	Previous Status	Year Estab
Arizona State U	AZ	Prog	1984	Ling Prog	1976
Brandeis U	MA	Prog	b1984	Ling Prog	b1972
Brown U	RI	Dept	1986	Ling Dept	b1972
Georgetown U	DC	Dept	1949	Division of Ling	1949
Harvard U	MA	Dept	1962	Comm on Comparative Philology	1927
Indiana U	IN	Dept	1963	Interdepartmental Ling Prog	1945
Macalaster C	MN	Dept	1977	Interdepartmental Ling Prog	1973
New York U	NY	Dept	1968	Ling Prog	1963
Northwestern U	IL	Dept	1965	Interdepartmental Ling Prog	1964
Oakland U	MI	Dept	1970	Interdisciplinary Ling Prog	1966
Ohio State U	OH	Dept	1967	Interdepartmental Ling Prog	1962
Ohio U	OH	Dept	1970	Interdepartmental Ling Prog	1964
Rice U	TX	Dept	1982	Interdepartmental Ling Prog	1969
So Illinois U at Carbondale	IL	Dept	1970	Interdepartmental Prog	1965
Stanford U	CA	Dept	1973	Ling Prog	1953
State U of NY at Buffalo	NY	Dept	1968	Ling Prog	1956
U of Arizona	AZ	Dept	b1980	Ling Prog	b1972
U of California, Berkeley	CA	Dept	1952	Interdepartmental Ling Prog	1949
U of California, Los Angeles	CA	Dept	1966	Ling Prog	1961
U of California, Riverside	CA	Prog	1969	less formal Prog	1966
U of Colorado, Boulder	CO	Dept	1968	Interdisciplinary Ling Prog	1962
U of Illinois	IL	Dept	1965	Interdepartmental Ling Prog	1960
U of Illinois at Chicago	IL	Dept	1973	Ling Prog in English Dept	b1972
U of Iowa	IA	Dept	1970	Interdepartmental Ling Prog	1965
U of Kansas	KS	Dept	1968	Interdepartmental Ling Prog	1957
U of Maryland, Baltimore Co	MD	Dept	1976	Prog	1970
U of Maryland, College Park	MD	Prog	1984	less formal Prog	1968
U of Massachusetts	MA	Dept	1971	Ling Prog	1968
U of Michigan	MI	Prog	1985	Dept of Ling	1963
U of Montana	MT	Prog	1973	Interdepartmental Ling Prog	1971
U of New Mexico	NM	Dept	1973	Interdisciplinary Ling Prog	1969
U of North Carolina	NC	Prog	1981	Dept of Ling & Nonwestern Lg	b1972
U of South Florida	FL	Prog	1968	Interdepartmental Ling Prog	1960
U of Southern California	CA	Dept	1974	Interdepartmental Ling Prog	1960
U of Texas at El Paso	TX	Dept	1971	Interdisciplinary Ling Prog	1968
U of Washington	WA	Dept	1962	Interdepartmental Ling Prog	1960
U of Wisconsin at Madison	WI	Dept	1954	Prog in Dept of Comp Philol	1925
Vanderbilt U	TN	Prog	1978	unofficial Prog	1966
Yale U	CT	Dept	1961	PhD Prog	1930

Key: b19nn = Established by 19nn

Type of Change	Nº of Institutions	Avg Duration
Prog to Dept	29	9+ years
Dept to Dept	1	14+ years
Dept to Prog	2	15+ years
Prog to Prog	7	9+ years
Total	39	

Table US9. Administrative Structure into Which Linguistics Fits at US Institutions, Based on LUC Questionnaire and Catalog

Institution Name	State	Status	Administrative Structure
American U	DC	Prog	Arts & Sciences
Arizona State U	AZ	Prog	Liberal Arts & Sciences
Boston C	MA	Prog	Arts & Sciences
Boston U	MA	Prog	Arts & Sciences
Brandeis U	MA	Prog	Sch of Social Science
Brigham Young U	UT	Dept	Sch of Humanities
Brooklyn C of CUNY	NY	Prog	Coll of Liberal Arts & Sciences
Brown U	RI	Dept	Biological & Life Sciences
Bucknell U	PA	Prog	Coll of Arts & Sciences
California State U, Dominguez Hills	CA	Prog	Sch of Humanities & Fine Arts
California State U, Fresno	CA	Dept	Sch of Humanities
California State U, Fullerton	CA	Dept	Sch of Humanities & Social Sciences
California State U, Long Beach	CA	Prog	Sch of Humanities
California State U, Northridge	CA	Prog	Sch of Humanities
Central Connecticut State U	CT	Prog	Liberal Arts & Sciences
Central Michigan U	MI	Prog	Liberal Arts & Sciences
Cleveland State U	OH	Prog	Coll of Arts & Sciences
C of William & Mary	VA	Prog	Arts & Sciences
Columbia U	NY	Dept	Graduate Sch of Arts & Sciences
Cornell U	NY	Dept	Arts & Sciences
Drew U	NJ	Prog	Coll of Liberal Arts
Duke U	NC	Prog	Coll of Arts & Sciences
Eastern Michigan U	MI	Prog	Coll of Arts & Sciences
Florida Atlantic U	FL	Dept	Coll of Humanities
Gallaudet C	DC	Dept	Sch of Communication
George Mason U	VA	Prog	Coll of Arts
Georgetown U	DC	Dept	Sch of Languages & Linguistics
Hampshire C	MA	Prog	Sch of Communication & Cognitive Sci
Harvard U	MA	Dept	Faculty of Arts & Sciences
Indiana U	IN	Dept	Coll of Arts & Sciences
Iowa State U of Science & Tech	IA	Prog	Coll of Sciences & Humanities
Lehman C of CUNY	NY	Prog	Humanities
Louisiana State U	LA	Prog	Arts & Sciences
Macalaster C	MN	Dept	Sch of Social Sciences
Massachusetts Inst of Technology	MA	Dept	Sch of Humanities & Social Science
Miami U	OH	Prog	Coll of Arts & Science
Michigan State U	MI	Dept	Coll of Arts & Letters
Montclair State C	NJ	Dept	Sch of Humanities & Social Sciences
North Texas State U	TX	Prog	Coll of Arts & Sciences
Northeastern Illinois U	IL	Dept	Liberal Arts & Sciences
Northeastern U	MA	Prog	Coll of Arts & Sciences
Northwestern U	IL	Dept	Division of Humanities
Oakland U	MI	Dept	Coll of Arts & Sciences
Ohio State U	OH	Dept	Coll of Humanities
Ohio U	OH	Dept	Coll of Arts & Sciences
Pennsylvania State U	PA	Prog	Coll of Liberal Arts
Princeton U	NJ	Prog	Council of the Humanities
Purdue U	IN	Prog	Sch of Humanities, Soc Sci & Educ
Queens C of CUNY	NY	Dept	Div of the Arts & the Humanities
Rice U	TX	Dept	Sch of Humanities

Institution Name	State	Status	Administrative Structure
Rutgers U	NJ	Prog	Liberal Arts & Sciences
San Diego State U	CA	Dept	Coll of Arts & Letters
San Francisco State U	CA	Prog	Sch of Humanities
San Jose State U	CA	Prog	Sch of Humanities
Sonoma State U	CA	Prog	Sch of Social Science
Southern Illinois U at Carbondale	IL	Dept	Coll of Liberal Arts
Southern Illinois U at Edwardsville	IL	Prog	Sch of Humanities
Stanford U	CA	Dept	Sch of Humanities & Sciences
State U of New York at Albany	NY	Prog	Coll of Humanities & Fine Arts
State U of New York at Binghamton	NY	Prog	Sch of Arts & Sciences
State U of New York at Buffalo	NY	Dept	Faculty of Social Sciences
State U of New York at Stony Brook	NY	Dept	Coll of Social & Behavioral Sciences
Swarthmore C	PA	Prog	Division of Social Sciences
Syracuse U	NY	Prog	Coll of Arts & Sciences
Temple U	PA	Prog	Coll of Arts & Sciences
Tulane U	LA	Prog	Division of Social Science
U of Alabama	AL	Prog	Graduate Sch
U of Alabama at Birmingham	AL	Prog	Sch of Humanities
U of Arizona	AZ	Dept	Faculty of Social & Behavioral Sci
U of California, Berkeley	CA	Dept	Sch of Social Sciences
U of California, Davis	CA	Prog	Coll of Letters & Sciences
U of California, Irvine	CA	Prog	Sch of Humanities
U of California, Los Angeles	CA	Dept	Division of Humanities
U of California, Riverside	CA	Prog	Coll of Humanities & Social Sci
U of California, San Diego	CA	Dept	Division of Social Sciences
U of California, Santa Barbara	CA	Prog	Coll of Letters & Science
U of California, Santa Cruz	CA	Dept	Division of Humanities
U of Chicago	IL	Dept	Division of the Humanities
U of Cincinnati	OH	Prog	Coll of Arts & Sciences
U of Colorado, Boulder	CO	Dept	Coll of Arts & Sciences
U of Connecticut	CT	Dept	Liberal Arts & Sciences
U of Florida	FL	Prog	Coll of Liberal Arts & Sciences
U of Georgia	GA	Dept	Coll of Arts & Sciences
U of Hawaii at Hilo	HI	Prog	Coll of Arts & Sciences
U of Illinois	IL	Dept	Coll of Liberal Arts & Sciences
U of Illinois at Chicago	IL	Dept	Liberal Arts & Sciences
U of Iowa	IA	Dept	Coll of Liberal Arts
U of Kansas	KS	Dept	Coll of Liberal Arts & Sciences
U of Louisville	KY	Prog	Coll of Arts & Sciences
U of Maryland, College Park	MD	Prog	Arts & Humanities
U of Massachusetts	MA	Dept	Faculty of Humanities & Fine Arts
U of Michigan	MI	Prog	Coll of Letters, Science & Arts
U of Minnesota at Minneapolis	MN	Dept	Coll of Liberal Arts
U of Missouri at Columbia	MO	Prog	Coll of Arts & Sciences
U of Montana	MT	Prog	Coll of Arts & Sciences
U of New Hampshire	NH	Prog	Coll of Liberal Arts & Sciences
U of New Mexico	NM	Dept	Coll of Arts & Sciences
U of North Carolina	NC	Prog	Coll of Arts & Sciences
U of Oklahoma	OK	Dept	Coll of Arts & Sciences
U of Oregon	OR	Dept	Coll of Arts & Sciences
U of Pennsylvania	PA	Dept	Sch of Arts & Sciences
U of Pittsburgh	PA	Dept	Faculty of Arts & Sciences
U of Rochester	NY	Dept	Coll of Arts & Sciences

Institution Name	State	Status	Administrative Structure
U of South Carolina	SC	Prog	Coll of Humanities & Social Sci
U of South Florida	FL	Prog	Coll of Arts & Letters
U of Southern California	CA	Dept	Coll of Letters, Arts & Science
U of Texas at Austin	TX	Dept	Coll of Liberal Arts
U of Texas at El Paso	TX	Dept	Coll of Liberal Arts
U of Toledo	OH	Prog	Arts & Sciences
U of Utah	UT	Prog	Coll of Humanities
U of Vermont	VT	Prog	Coll of Arts & Sciences
U of Virginia	VA	Prog	Liberal Arts & Sciences
U of Washington	WA	Dept	Coll of Arts & Sciences
U of Wisconsin at Green Bay	WI	Prog	Communication & the Arts
U of Wisconsin at Madison	WI	Dept	Sch of Humanities
U of Wisconsin at Milwaukee	WI	Dept	Coll of Letters & Science
U of the Pacific	CA	Prog	Coll of Arts & Sciences
Vanderbilt U	TN	Prog	Coll of Arts & Sciences
Wayne State U	MI	Prog	Coll of Liberal Arts & Sciences
West Virginia U	WV	Prog	Coll of Arts & Sciences
Western Michigan U	MI	Dept	Coll of Arts & Sciences
Yale U	CT	Dept	Humanities

Structure	Nº
Arts, Arts & Science, etc.	72
Humanities	
alone	21
& Arts	5
& Science	2
& Social Science	6
Social Sci, Communication, etc.	13
Life Science	1
Language and Linguistics	1
Other (Graduate School)	1
Total	122

Table US10. US Institutions Offering Joint Majors in Linguistics with Other Disciplines, as Reported to the LUC Project

Institution Name	State	Other Discipline
Brooklyn College of CUNY	NY	
California State University, Dominguez Hills	CA	English
California State University, Long Beach	CA	English, Spanish
Eastern Michigan University	MI	English Literature
Florida Atlantic University	FL	French, German, Spanish
Florida International University	FL	English
Hampshire College	MA	individualized BA
Illinois State University	IL	TESOL
Macalaster College	MN	TESL
Oakland University	MI	Computer Science & Engineering
Occidental College	CA	a foreign language
Princeton University	NJ	
San Francisco State University	CA	English
St Cloud State University	MN	English
State University of New York at Albany	NY	Slavic, Spanish, French, German, TESL (BA/MS degree)
University of Connecticut	CT	Philosophy
University of Delaware	DE	languages
University of Georgia	GA	
University of Illinois	IL	
University of Illinois at Chicago	IL	student designed curriculum
University of Maryland, Baltimore County	MD	German, French, Spanish, Russian
University of Massachusetts	MA	Anthropology, Chinese, Japanese, German, Russian, Philosophy, Psychology
University of Minnesota at Duluth	MN	English
University of Montana	MT	Anthropology, English, Foreign Languages
University of Nevada, Reno	NV	English
University of North Carolina	NC	Germanic Languages, Romance Languages, Classics, Philosophy, Psychology, Anthropology, Speech Communication, Speech & Hearing Science
University of Northern Iowa	IA	TESOL
University of Southern Mississippi	MS	Liberal Arts
University of Vermont	VT	
University of Wisconsin at Green Bay	WI	ESL certification
Vanderbilt University	TN	Communication,. Hearing & Speech

Other Discipline	Nº of Departments
foreign languages	21
English	9
(T)ES(O)L	5
Speech, Communication	4
Anthropology	3
Philosophy	3

Other Discipline	Nº of Departments
Psychology	2
individualized curriculum	2
Classics	1
Computer Science	1
Liberal Arts	1

Total number of institutions 31; other departments 52

Table US11. Other Departments Offering Linguistics Courses at US Institutions as Reported on the LUC Questionnaire

Institution Name	State	Department or Discipline
Boston University	MA	English
		Modern Languages
		School of Education
		Computer Sciences
		Anthropology
Bryn Mawr College	PA	Anthropology
		Russian
California State University, Dominguez Hills	CA	English
		Spanish
		French
California State University, Fullerton	CA	Foreign Language and Literature
		Anthropology
		English
		Speech Communication
Central Michigan University	MI	Foreign Languages & Literatures
Chicago State University	IL	English
		Speech
Cleveland State University	OH	Anthropology
		Communication
		English
		Modern Languages
		Philosophy
		Psychology
		Speech and Hearing
Duke University	NC	Anthropology
		English
		French
		German
		Philosophy
		Psychology
		Russian
		Spanish
Eastern Michigan University	MI	English Language & Literature
Florida Atlantic University	FL	English
		Anthropology
Harvard University	MA	Slavic Language & Literature
		Romance Language & Literature
		Germanic Language & Literature
		Classics
Indiana State University	IN	English
Middlebury College	VT	Psychology
Montclair State College	NJ	Communication Sci
		Anthropology
		Psychology
		Philosophy
New Mexico State University	NM	Anthropology
		Comm Studies

Institution Name	State	Department or Discipline
Princeton University	NJ	Anthropology
		Computer Science
		East Asian Studies
		English
		German
		Philosophy
		Psychology
		Romance Languages
San Francisco State University	CA	English
State University of New York at Buffalo	NY	Modern Languages
Swarthmore College	PA	French
		Philosophy
		English
		Chinese
		Sociology
		Anthropology
Temple University	PA	English
		Speech
		Anthropology
		Computer Science
		Spanish
Texas A&M University	TX	Modern Languages
University of Alabama at Birmingham	AL	Anthropology
		Philosophy
University of Alaska	AK	English
		Alaskan Native Languages
University of California, Davis	CA	Anthropology
		French
		German
		Russian
		English
		Psychology
		Education
		Human Development
University of California, Irvine	CA	Russian
		French
		English
		German
		Philosophy
		Social Sciences
University of California, Riverside	CA	Sociology
		Ethnic Studies
		Psychology
		Languages & Literatures
University of California, Santa Barbara	CA	Spanish & Portuguese
		French & Italian

Institution Name	State	Department or Discipline
University of Illinois at Chicago	IL	English
		Spanish, Italian & Portuguese
		Slavic & Baltic Languages
		French
		German
		Anthropology
		Communication
		Psychology
University of Michigan	MI	Romance
		Psychology
		Anthropology
		German
		Near East
		English
		Classics
		Asian Languages & Cultures
University of Minnesota at Minneapolis	MN	English
		French & Italian
		S & SW Asian Studies
		German
		East Asian Studies
		Spanish & Portuguese
University of Oklahoma	OK	English
		Philosophy
		Anthropology
University of Wisconsin at Milwaukee	WI	English
		Anthropology
		Philosophy
University of the Pacific	CA	School of Education
		Philosophy
		Modern Languages
		Communication
Vanderbilt University	TN	English
		French and Italian
		Germanic and Slavic
		Spanish & Portuguese
Yale University	CT	Anthropology
		Psychology

Discipline Area	Nº of Institutions
Foreign lgs and lits	45
Anthropology (incl Area Studies, Ethnic Studies)	23
English lg and lit	22
Psychology (incl Human Development)	11
Philosophy	10
Speech (incl Communication)	9
Computer Science	3
Education	3
Classics	2
Sociology	2
Social Science	1

Total Nº of institutions 35; other depts 131

Table US12. Number of BA Degrees in Linguistics Granted in Selected Academic Years from 1972-73 to 1985-86 by US Institutions According to the LSA Directory of Programs, Arranged Alphabetically by Granting Institution

Institution Name	City	State	1972 -73	76 -77	78 -79	80 -81	81 -82	82 -83	84 -85	85 -86
Barnard C of Columbia U	New York	NY	9	5	10	6	7	7	3	1
Bethel C*	St Paul	MN	0	4	0	0	4	2	0	0
Boston C	Chestnut Hill	MA	2	3	2	3	3	3	2	3
Brandeis U	Waltham	MA	1	4	3	8	8	4	3	5
Brigham Young U	Provo	UT	0	0	0	0	3	3	8	4
Brooklyn C of CUNY	Brooklyn	NY	0	10	12	10	3	1	0	0
Brown U	Providence	RI	5	14	8	4	3	6	3	5
Bucknell U	Lewisburg	PA	0	10	3	3	3	2	1	3
California State U, Dominguez Hills	Carson	CA	12	0	0	0	8	6	5	5
California State U, Fresno	Fresno	CA	4	4	9	9	6	8	9	8
California State U, Fullerton	Fullerton	CA	20	20	6	6	11	10	21	20
California State U, Long Beach	Long Beach	CA	0	0	0	0	2#	1#	2#	1#
California State U, Northridge	Northridge	CA	0	6	6	5	6	8	7	7
Central Connecticut State U	New Britain	CT	0	1	0	0	0	0	0	0
Central Michigan U	Mount Pleasant	MI	0	0	0	0	1	0	0	0
Central Missouri State U*	Warrensburg	MO	0	4	0	0	0	0	0	0
Central U of Iowa (Central C)	Pella	IA	0	0	2	1	2	2	1	2
Claremont C (Pitzer C, Pomona C)	Claremont	CA	0	5	7	3	3	3	4	3
Cleveland State U	Cleveland	OH	0	0	0	0	2	2	2	1
C of William and Mary	Williamsburg	VA	0	0	0	0	0	0	2	4
Cornell U	Ithaca	NY	7	6	7	0	0	0	6	10
Drew U	Madison	NJ	0	0	0	0	2	1	0	0
Duke U	Durham	NC	2	0	0	0	0	0	2	2
Eastern Michigan U	Ypsilanti	MI	0	0	0	0	0	0	3	3
Florida Atlantic U	Boca Raton	FL	14	16	0	11	11	8	7	15
Georgetown U	Washington	DC	8	22	24	8	14	12	21	13
Harvard U	Cambridge	MA	5	7	0	3	5	4	5	4
Humboldt State U*	Arcata	CA	0	3	0	0	0	0	0	0
Indiana State U	Terre Haute	IN	0	0	0	0	2	2	2	0
Indiana U	Bloomington	IN	0	0	4	0	12	7	3	1
Lehman C of CUNY	Bronx	NY	0	0	4	2	1	2	0	0
Loyola U of Chicago*	Chicago	IL	0	0	0	0	1	1	0	0
Macalaster C	St Paul	MN	4	10	6	4	5	9	5	6
Miami U	Oxford	OH	8	7	6	5	8	7	0	6
Michigan State U	East Lansing	MI	0	4	6	5	2	4	0	3
Montclair State C	Upper Montclair	NJ	2	4	3	3	4	5	2	1
New York U	New York	NY	5	3	2	2	0	2	2	3
Northeastern Illinois U	Chicago	IL	6#	0	3	0	5	6	9	2
Northeastern U	Boston	MA	0	0	0	0	4	2	3	5
Northern Arizona U	Flagstaff	AZ	0	1	0	0	0	0	0	0
Northwestern U	Evanston	IL	2	7	5	7	8	6	1	7
Oakland U	Rochester	MI	4	8	3	3	5	1	1	2
Occidental C	Los Angeles	CA	0	0	0	0	1	1	1	2
Ohio State U	Columbus	OH	6	5	1	4	6	3	5	6
Pennsylvania State U	University Park	PA	25	20	5	0	6	2	3	3
Purdue U	West Lafayette	IN	0	0	0	0	0	0	1	0
Queens C of CUNY	Flushing	NY	0	20	0	0	12	14	38	19
Rice U	Houston	TX	0	3	5	4	5	3	4	5
Rutgers U	New Brunswick	NJ	0	0	2	2	2	2	4	8

Institution Name	City	State	1972 -73	76 -77	78 -79	80 -81	81 -82	82 -83	84 -85	85 -86
San Diego State U	San Diego	CA	0	15	8	20	0	19	15	11
Sonoma State U	Rohnert Park	CA	0	0	2	3	3	2	1	1
Southern Illinois U at Carbondale	Carbondale	IL	0	3	8	9	10	20	6	3
Stanford U	Stanford	CA	0	10	0	7	4	4	9	13
State U of New York at Albany	Albany	NY	0	5	11	8	5	6	4	5
State U of New York at Binghamton	Binghamton	NY	10	7	10	13	6	9	12	9
State U of New York at Buffalo	Buffalo	NY	4	22	10	26	7	6	8	8
State U of New York at New Paltz*	New Paltz	NY	0	2	2	2	2	0	0	0
State U of New York at Oswego*	Oswego	NY	6	5	5	0	0	0	0	0
State U of New York at Stony Brook	Stony Brook	NY	12	12	0	0	8	8	14	10
Swarthmore C	Swarthmore	PA	0	8	8	8	2	3	0	2
Syracuse U	Syracuse	NY	1	3	3	2	0	2	3	1
Temple U	Philadelphia	PA	0	0	0	0	4	4	4	4
Tulane U	New Orleans	LA	0	0	0	0	3	1	2	2
U of Alabama at Birmingham	Birmingham	AL	0	0	0	0	0	2	0	0
U of Alaska	Fairbanks	AK	0	0	0	0	0	1	1	2
U of Arizona	Tucson	AZ	0	0	6	3	0	3	3	4
U of California, Berkeley	Berkeley	CA	32	22	44	41	45	47	38	30
U of California, Davis	Davis	CA	0	0	5	8	10	11	11	8
U of California, Irvine	Irvine	CA	18	11	10	21	17	21	12	8
U of California, Los Angeles	Los Angeles	CA	5	42	38	21	32	40	57	61
U of California, Riverside	Riverside	CA	11	0	0	0	2	4	1	3
U of California, San Diego	LaJolla	CA	20#	24	20	12	17	15	10	11
U of California, Santa Barbara	Santa Barbara	CA	6	0	6	7	4	12	2	4
U of California, Santa Cruz	Santa Cruz	CA	12	18	17	8	10	8	9	13
U of Chicago	Chicago	IL	14	4	6	14	0	0	6	7
U of Cincinnati	Cincinnati	OH	0	3	2	3	4	2	3	2
U of Colorado, Boulder	Boulder	CO	0	1	4	6	7	2	2	6
U of Connecticut	Storrs	CT	0	0	0	0	0	1	0	0
U of Florida	Gainesville	FL	0	0	3	4	6	9	0	0
U of Hartford*	West Hartford	CT	3	2	0	0	0	0	0	0
U of Hawaii at Hilo	Hilo	HI	1	0	5	4	12	12	5	3
U of Hawaii at Manoa	Honolulu	HI	2	3	3	3	4	1	1	1
U of Illinois	Urbana	IL	0	20	4	10	3	4	4	3
U of Iowa	Iowa City	IA	0	1	2	4	3	1	6	2
U of Kansas	Lawrence	KS	9	9	6	7	7	3	5	7
U of Kentucky	Lexington	KY	0	4	3	1	0	1	1	2
U of Louisville	Louisville	KY	0	0	3	2	1	1	0	0
U of Maryland at College Park	College Park	MD	0	0	0	0	0	0	2	2
U of Massachusetts	Amherst	MA	0	0	6	0	5	5	6	5
U of Michigan	Ann Arbor	MI	25	0	18	17	16	16	13	10
U of Minnesota at Minneapolis	Minneapolis	MN	8	6	5	10	8	12	5	6
U of Missouri at Columbia	Columbia	MO	4	13	2	1	1	2	4	3
U of Montana	Missoula	MT	0	4	5	6	2	1	4	7
U of Nebraska at Lincoln*	Lincoln	NE	0	0	2	8	3	3	0	0
U of New Hampshire	Durham	NH	0	4	5	6	1	5	5	4
U of New Mexico	Albuquerque	NM	0	3	2	1	1	2	2	2
U of North Carolina	Chapel Hill	NC	2	0	2	4	0	2	3	1
U of Northern Iowa	Cedar Falls	IA	0	3	0	0	0	0	0	0
U of Oklahoma	Norman	OK	0	0	0	0	0	0	0	2
U of Oregon	Eugene	OR	1	19	0	0	8	17	11	15
U of Pennsylvania	Philadelphia	PA	3	0	0	0	0	0	1	11

Institution Name	City	State	1972 -73	76 -77	78 -79	80 -81	81 -82	82 -83	84 -85	85 -8
U of Pittsburgh	Pittsburgh	PA	0	2	3	4	2	1	1	0
U of Rochester	Rochester	NY	0	4	9	2	2	2	0	2
U of South Florida	Tampa	FL	8	0	0	0	0	0	0	0
U of Southern California	Los Angeles	CA	0	5	0	0	4	4	2	5
U of Southern Mississippi	Hattiesburg	MS	1	0	2	0	0	0	0	0
U of Texas at Austin	Austin	TX	4	13	7	10	2	4	8	10
U of Texas at El Paso	El Paso	TX	4	3	0	1	2	1	0	1
U of Toledo	Toledo	OH	2	1	1	2	1	1	1	1
U of Utah	Salt Lake City	UT	0	4	4	4	7	4	10	8
U of Vermont	Burlington	VT	0	0	2	2	4	3	2	2
U of Virginia	Charlottesville	VA	0	0	2	0	1	1	2	5
U of Washington	Seattle	WA	0	0	8	8	17	10	11	12
U of Wisconsin at Green Bay	Green Bay	WI	0	4	3	0	2#	3#	3	2
U of Wisconsin at Madison	Madison	WI	7	11	11	8	3	7	4	14
U of Wisconsin at Milwaukee	Milwaukee	WI	0	4	4	3	5	4	3	3
U of the Pacific	Stockton	CA	0	0	1	0	0	1	1	0
Washington State U	Pullman	WA	0	12	4	3	2	2	4	3
Washington U	St Louis	MO	2	3	0	0	6	0	1	1
West Virginia U	Morgantown	WV	0	0	0	0	4	5	4	2
Western Michigan U	Kalamazoo	MI	6	7	12	3	5	6	4	1
Wichita State U*	Wichita	KS	0	2	3	0	0	0	0	0
Yale U	New Haven	CT	0	10	0	0	8	8	5	6
Total		123	394	629	533	501	556	589	578	591
Total reported by US Office of Education					551	534			470	

Key: * = Program Not Listed in 1987 Directory; # = Adjusted Figures

Table US13. Number of BA Degrees in Linguistics Granted in Selected Academic Years from 1972-73 to 1985-86, by State

State	72-73	75-76	77-78	79-80	80-81	81-82	83-84	84-85	Total	Rank
Alabama	0	0	0	0	0	2	0	0	2	39-41
Alaska	0	0	0	0	0	1	1	2	4	36-37
Arizona	0	1	6	3	0	3	3	4	20	27-28
Arkansas	0	0	0	0	0	0	0	0	0	42-52
California	140	185	179	171	185	225	217	214	1516	1
Colorado	0	1	4	6	7	2	2	6	28	26
Connecticut	3	13	0	0	8	9	5	6	44	21
Delaware	0	0	0	0	0	0	0	0	0	42-52
District of Columbia	8	22	24	8	14	12	21	13	122	7
Florida	22	16	3	15	17	17	7	15	112	10
Georgia	0	0	2	0	0	0	0	0	2	39-41
Hawaii	3	3	8	7	16	13	6	4	60	15
Idaho	0	0	0	0	0	0	0	0	0	42-52
Illinois	22	34	26	40	27	37	26	22	234	3
Indiana	0	0	4	0	14	9	6	1	34	22
Iowa	0	4	4	5	5	3	7	4	32	23
Kansas	9	11	9	7	7	3	5	7	58	17
Kentucky	0	4	6	3	1	2	1	2	19	29
Louisiana	0	0	0	0	3	1	2	2	8	35
Maine	0	0	0	0	0	0	0	0	0	42-52
Maryland	0	0	0	0	0	0	2	2	4	36-37
Massachusetts	8	14	11	14	25	18	19	22	131	6
Michigan	35	19	39	28	29	27	21	19	217	4
Minnesota	12	20	11	14	17	23	10	12	119	8-9
Mississippi	1	0	2	0	0	0	0	0	3	38
Missouri	6	20	2	1	7	2	5	4	47	19-20
Montana	0	4	5	6	2	1	4	7	29	25
Nebraska	0	0	2	8	3	3	0	0	16	31
Nevada	0	0	0	0	0	0	0	0	0	42-52
New Hampshire	0	4	5	6	1	5	5	4	30	24
New Jersey	2	4	5	5	8	8	6	9	47	19-20
New Mexico	0	3	2	1	1	2	2	3	14	34
New York	54	104	85	73	53	59	90	68	586	2
North Carolina	4	0	2	4	0	2	5	3	20	27-28
North Dakota	0	0	0	0	0	0	0	0	0	42-52
Ohio	16	16	10	14	21	15	11	16	119	8-9
Oklahoma	0	0	0	0	0	0	0	2	2	39-41
Oregon	1	19	0	0	8	17	11	15	71	14
Pennsylvania	28	40	19	15	17	12	10	23	164	5
Puerto Rico	0	0	0	0	0	0	0	0	0	42-52
Rhode Island	5	14	8	4	3	6	3	5	48	18
South Carolina	0	0	0	0	0	0	0	0	0	42-52
South Dakota	0	0	0	0	0	0	0	0	0	42-52
Tennessee	0	0	0	0	0	0	0	0	0	42-52
Texas	8	19	12	15	9	8	12	16	99	12
Utah	0	4	4	4	10	7	18	12	59	16
Vermont	0	0	2	2	4	3	2	2	15	32-33
Virginia	0	0	2	0	1	1	4	9	17	30
Washington	0	12	12	11	19	12	15	15	96	13
West Virginia	0	0	0	0	4	5	4	2	15	32-33
Wisconsin	7	19	18	11	10	14	10	19	108	11
Wyoming	0	0	0	0	0	0	0	0	0	42-52
Total	394	629	533	501	556	589	578	591	4371	

Table US14. US Institutions Granting One or More Undergraduate Degrees in Linguistics in 1976-77 According to the 1978 LSA Directory of Programs

Institution Name	City	State	Nº of Degrees	Rank
University of California, Los Angeles	Los Angeles	CA	42	1
University of California, San Diego	LaJolla	CA	24	2
Georgetown University	Washington	DC	22	3-5
State University of New York at Buffalo	Buffalo	NY	22	3-5
University of California, Berkeley	Berkeley	CA	22	3-5
California State University, Fullerton	Fullerton	CA	20	6-9
Pennsylvania State University	University Park	PA	20	6-9
Queens College of CUNY	Flushing	NY	20	6-9
University of Illinois	Urbana	IL	20	6-9
University of Oregon	Eugene	OR	19	10
University of California, Santa Cruz	Santa Cruz	CA	18	11
Florida Atlantic University	Boca Raton	FL	16	12
San Diego State University	San Diego	CA	15	13
Brown University	Providence	RI	14	14
University of Missouri at Columbia	Columbia	MO	13	15-16
University of Texas at Austin	Austin	TX	13	15-16
State University of New York at Stony Brook	Stony Brook	NY	12	17-18
Washington State University	Pullman	WA	12	17-18
University of California, Irvine	Irvine	CA	11	19-20
University of Wisconsin at Madison	Madison	WI	11	19-20
Brooklyn College of CUNY	Brooklyn	NY	10	21-25
Bucknell University	Lewisburg	PA	10	21-25
Macalaster College	St Paul	MN	10	21-25
Stanford University	Stanford	CA	10	21-25
Yale University	New Haven	CT	10	21-25
University of Kansas	Lawrence	KS	9	26
Oakland University	Rochester	MI	8	27-28
Swarthmore College	Swarthmore	PA	8	27-28
Harvard University	Cambridge	MA	7	29-33
Miami University	Oxford	OH	7	29-33
Northwestern University	Evanston	IL	7	29-33
State University of New York at Binghamton	Binghamton	NY	7	29-33
Western Michigan University	Kalamazoo	MI	7	29-33
California State University, Northridge	Northridge	CA	6	34-36
Cornell University	Ithaca	NY	6	34-36
University of Minnesota at Minneapolis	Minneapolis	MN	6	34-36
Barnard College of Columbia University	New York	NY	5	37-42
Claremont Colleges (Pitzer C, Pomona C)	Claremont	CA	5	37-42
Ohio State University	Columbus	OH	5	37-42
State University of New York at Albany	Albany	NY	5	37-42
State University of New York at Oswego*	Oswego	NY	5	37-42
University of Southern California	Los Angeles	CA	5	37-42

Institution Name	City	State	Nº of Degrees	Rank
Bethel College*	St Paul	MN	4	43-56
Brandeis University	Waltham	MA	4	43-56
California State University, Fresno	Fresno	CA	4	43-56
Central Missouri State University*	Warrensburg	MO	4	43-56
Michigan State University	East Lansing	MI	4	43-56
Montclair State College	Upper Montclair	NJ	4	43-56
University of Chicago	Chicago	IL	4	43-56
University of Kentucky	Lexington	KY	4	43-56
University of Montana	Missoula	MT	4	43-56
University of New Hampshire	Durham	NH	4	43-56
University of Rochester	Rochester	NY	4	43-56
University of Utah	Salt Lake City	UT	4	43-56
University of Wisconsin at Green Bay	Green Bay	WI	4	43-56
University of Wisconsin at Milwaukee	Milwaukee	WI	4	43-56
Boston College	Chestnut Hill	MA	3	57-68
Humboldt State University*	Arcata	CA	3	57-68
New York University	New York	NY	3	57-68
Rice University	Houston	TX	3	57-68
Southern Illinois University at Carbondale	Carbondale	IL	3	57-68
Syracuse University	Syracuse	NY	3	57-68
University of Cincinnati	Cincinnati	OH	3	57-68
University of Hawaii at Manoa	Honolulu	HI	3	57-68
University of New Mexico	Albuquerque	NM	3	57-68
University of Northern Iowa	Cedar Falls	IA	3	57-68
University of Texas at El Paso	El Paso	TX	3	57-68
Washington University	St Louis	MO	3	57-68
State University of New York at New Paltz*	New Paltz	NY	2	69-72
University of Hartford*	West Hartford	CT	2	69-72
University of Pittsburgh	Pittsburgh	PA	2	69-72
Wichita State University*	Wichita	KS	2	69-72
Central Connecticut State University	New Britain	CT	1	73-77
Northern Arizona University	Flagstaff	AZ	1	73-77
University of Colorado, Boulder	Boulder	CO	1	73-77
University of Iowa	Iowa City	IA	1	73-77
University of Toledo	Toledo	OH	1	73-77
Total			629	

Key: * = Program not Listed in 1987 Directory

Table US15. US Institutions Granting One or More Undergraduate Degrees in Linguistics in 1985-86 According to the 1987 LSA Directory of Programs

Institution Name	City	State	Nº of Degrees	Rank
University of California, Los Angeles	Los Angeles	CA	61	1
University of California, Berkeley	Berkeley	CA	30	2
California State University, Fullerton	Fullerton	CA	20	3
Queens College of CUNY	Flushing	NY	19	4
Florida Atlantic University	Boca Raton	FL	15	5-6
University of Oregon	Eugene	OR	15	5-6
University of Wisconsin at Madison	Madison	WI	14	7
Georgetown University	Washington	DC	13	8-10
Stanford University	Stanford	CA	13	8-10
University of California, Santa Cruz	Santa Cruz	CA	13	8-10
University of Washington	Seattle	WA	12	11
San Diego State University	San Diego	CA	11	12-14
University of California, San Diego	LaJolla	CA	11	12-14
University of Pennsylvania	Philadelphia	PA	11	12-14
Cornell University	Ithaca	NY	10	15-18
State University of New York at Stony Brook	Stony Brook	NY	10	15-18
University of Michigan	Ann Arbor	MI	10	15-18
University of Texas at Austin	Austin	TX	10	15-18
State University of New York at Binghamton	Binghamton	NY	9	19
California State University, Fresno	Fresno	CA	8	20-25
Rutgers University	New Brunswick	NJ	8	20-25
State University of New York at Buffalo	Buffalo	NY	8	20-25
University of California, Davis	Davis	CA	8	20-25
University of California, Irvine	Irvine	CA	8	20-25
University of Utah	Salt Lake City	UT	8	20-25
California State University, Northridge	Northridge	CA	7	26-30
Northwestern University	Evanston	IL	7	26-30
University of Chicago	Chicago	IL	7	26-30
University of Kansas	Lawrence	KS	7	26-30
University of Montana	Missoula	MT	7	26-30
Macalaster College	St Paul	MN	6	31-36
Miami University	Oxford	OH	6	31-36
Ohio State University	Columbus	OH	6	31-36
University of Colorado, Boulder	Boulder	CO	6	31-36
University of Minnesota at Minneapolis	Minneapolis	MN	6	31-36
Yale University	New Haven	CT	6	31-36
Brandeis University	Waltham	MA	5	37-45
Brown University	Providence	RI	5	37-45
California State University, Dominguez Hills	Carson	CA	5	37-45
Northeastern University	Boston	MA	5	37-45
Rice University	Houston	TX	5	37-45
State University of New York at Albany	Albany	NY	5	37-45
University of Massachusetts	Amherst	MA	5	37-45
University of Southern California	Los Angeles	CA	5	37-45
University of Virginia	Charlottesville	VA	5	37-45
Brigham Young University	Provo	UT	4	46-52
College of William and Mary	Williamsburg	VA	4	46-52
Harvard University	Cambridge	MA	4	46-52
Temple University	Philadelphia	PA	4	46-52

Institution Name	City	State	Nº of Degrees	Rank
University of Arizona	Tucson	AZ	4	46-52
University of California, Santa Barbara	Santa Barbara	CA	4	46-52
University of New Hampshire	Durham	NH	4	46-52
Boston College	Chestnut Hill	MA	3	53-65
Bucknell University	Lewisburg	PA	3	53-65
Claremont Colleges (Pitzer C, Pomona C)	Claremont	CA	3	53-65
Eastern Michigan University	Ypsilanti	MI	3	53-65
Michigan State University	East Lansing	MI	3	53-65
New York University	New York	NY	3	53-65
Pennsylvania State University	University Park	PA	3	53-65
Southern Illinois University at Carbondale	Carbondale	IL	3	53-65
University of California, Riverside	Riverside	CA	3	53-65
University of Hawaii at Hilo	Hilo	HI	3	53-65
University of Illinois	Urbana	IL	3	53-65
University of Missouri at Columbia	Columbia	MO	3	53-65
University of Wisconsin at Milwaukee	Milwaukee	WI	3	53-65
Washington State University	Pullman	WA	3	53-65
Central University of Iowa (Central College)	Pella	IA	2	66-83
Duke University	Durham	NC	2	66-83
Northeastern Illinois University	Chicago	IL	2	66-83
Oakland University	Rochester	MI	2	66-83
Occidental College	Los Angeles	CA	2	66-83
Swarthmore College	Swarthmore	PA	2	66-83
Tulane University	New Orleans	LA	2	66-83
University of Alaska	Fairbanks	AK	2	66-83
University of Cincinnati	Cincinnati	OH	2	66-83
University of Iowa	Iowa City	IA	2	66-83
University of Kentucky	Lexington	KY	2	66-83
University of Maryland at College Park	College Park	MD	2	66-83
University of New Mexico	Albuquerque	NM	2	66-83
University of Oklahoma	Norman	OK	2	66-83
University of Rochester	Rochester	NY	2	66-83
University of Vermont	Burlington	VT	2	66-83
University of Wisconsin at Green Bay	Green Bay	WI	2	66-83
West Virginia University	Morgantown	WV	2	66-83
Barnard College of Columbia University	New York	NY	1	84-96
California State University, Long Beach	Long Beach	CA	1#	84-96
Cleveland State University	Cleveland	OH	1	84-96
Indiana University	Bloomington	IN	1	84-96
Montclair State College	Upper Montclair	NJ	1	84-96
Sonoma State University	Rohnert Park	CA	1	84-96
Syracuse University	Syracuse	NY	1	84-96
University of Hawaii at Manoa	Honolulu	HI	1	84-96
University of North Carolina	Chapel Hill	NC	1	84-96
University of Texas at El Paso	El Paso	TX	1	84-96
University of Toledo	Toledo	OH	1	84-96
Washington University	St Louis	MO	1	84-96
Western Michigan University	Kalamazoo	MI	1	84-96
Total			591	

Key: # = Adjusted Figure

Table US16. Number of Undergraduate Degrees in Linguistics Awarded in 1976-77 by State, According to 1978 LSA Directory of Programs

State	Nº of Degrees	Rank
California	191	1
New York	103	2
Pennsylvania	40	3
Illinois	34	4
District of Columbia	22	5
Minnesota	20	6-7
Missouri	20	6-7
Michigan	19	8-11
Oregon	19	8-11
Texas	19	8-11
Wisconsin	19	8-11
Florida	16	12-13
Ohio	16	12-13
Massachusetts	14	14-15
Rhode Island	14	14-15
Connecticut	13	16
Washington	12	17
Kansas	11	18
Iowa	4	19-24
Kentucky	4	19-24
Montana	4	19-24
New Hampshire	4	19-24
New Jersey	4	19-24
Utah	4	19-24
Hawaii	3	25-26
New Mexico	3	25-26
Arizona	1	27-28
Colorado	1	27-28
Alabama	0	29-52
Alaska	0	29-52
Arkansas	0	29-52
Delaware	0	29-52
Georgia	0	29-52
Idaho	0	29-52
Indiana	0	29-52
Louisiana	0	29-52
Maine	0	29-52
Maryland	0	29-52
Mississippi	0	29-52
Nebraska	0	29-52
Nevada	0	29-52
North Carolina	0	29-52
North Dakota	0	29-52
Oklahoma	0	29-52
Puerto Rico	0	29-52
South Carolina	0	29-52
South Dakota	0	29-52
Tennessee	0	29-52
Vermont	0	29-52
Virginia	0	29-52
West Virginia	0	29-52
Wyoming	0	29-52
Total	629	

Table US17. Number of Undergraduate Degrees in Linguistics Awarded in 1985-86 by State, According to 1987 LSA Directory of Programs

State	Nº of Degrees	Rank
California	214	1
New York	68	2
Pennsylvania	23	3
Illinois	22	4-5
Massachusetts	22	4-5
Michigan	19	6-7
Wisconsin	19	6-7
Ohio	16	8-9
Texas	16	8-9
Florida	15	10-12
Oregon	15	10-12
Washington	15	10-12
District of Columbia	13	13
Minnesota	12	14-15
Utah	12	14-15
New Jersey	9	16-17
Virginia	9	16-17
Kansas	7	18-19
Montana	7	18-19
Colorado	6	20-21
Connecticut	6	20-21
Rhode Island	5	22
Arizona	4	23-27
Hawaii	4	23-27
Iowa	4	23-27
Missouri	4	23-27
New Hampshire	4	23-27
New Mexico	3	28-29
North Carolina	3	28-29
Alaska	2	30-36
Kentucky	2	30-36
Louisiana	2	30-36
Maryland	2	30-36
Oklahoma	2	30-36
Vermont	2	30-36
West Virginia	2	30-36
Indiana	1	37
Alabama	0	38-52
Arkansas	0	38-52
Delaware	0	38-52
Georgia	0	38-52
Idaho	0	38-52
Maine	0	38-52
Mississippi	0	38-52
Nebraska	0	38-52
Nevada	0	38-52
North Dakota	0	38-52
Puerto Rico	0	38-52
South Carolina	0	38-52
South Dakota	0	38-52
Tennessee	0	38-52
Wyoming	0	38-52
Total	591	

Table US18. US Institutions Offering an Undergraduate Major in Linguistics, Number of Majors Enrolled in 1972 as Reported in the 1974 Directory of Programs, and Number of Majors Enrolled in 1985-86 as Reported on the LUC Questionnaire

Institution Name	State	Nº of Majors Enrolled 1972-73	Rank 1972 -73	Nº of Majors Enrolled 1985-86	Rank 1985 -86
Barnard C of Columbia U	NY	12	33-37	2	93-97
Boston C	MA	5	43-46	2	93-97
Brandeis U	MA	*		12	49-52
Brigham Young U	UT	*		40	13-14
Brooklyn C of CUNY	NY	*		1	98-101
Brown U	RI	10	39-40	7	67-69
Bucknell U	PA	*		2	93-97
California State U, Dominguez Hills	CA	47	7	15	40-45
California State U, Fresno	CA	22	22-23	41	10-12
California State U, Fullerton	CA	70	4	52	5
California State U, Long Beach	CA	*		6	70-74
California State U, Northridge	CA	20	26-29	66	2
Central Michigan U	MI	*		4	85-89
Central U of Iowa (Central C)	IA	*		*	
Claremont Cs (Pitzer C, Pomona C)	CA	*		5	75-84
Cleveland State U	OH	*		7	67-69
C of William and Mary	VA	*		15	40-45
Cornell U	NY	27	19	17	38
Duke U	NC	*		5	75-84
Eastern Michigan U	MI	*		4	85-89
Florida Atlantic U	FL	28	18	5	75-84
Georgetown U	DC	66	5	48	8-9
Hamilton C	NY	*		3	90-92
Harvard U	MA	35	12-13	19	36
Indiana U	IN	20	26-29	25	26-28
Iowa State U of Science and Tech	IA	*		6	70-74
Lehman C of CUNY	NY	*		3	90-92
Macalaster C	MN	20	26-29	24	29
Miami U	OH	15	31	*	
Michigan State U	MI	12	33-37	35	17-19
Montclair State C	NJ	16	30	13	48
New York U	NY	12	33-37	*	
Northeastern Illinois U	IL	*		20	30-35
Northeastern U	MA	*		5	75-84
Northwestern U	IL	11	38	18	37
Oakland U	MI	*		9	65
Ohio State U	OH	22	22-23	20	30-35
Ohio U	OH	*		1	98-101
Pennsylvania State U	PA	40	8-10	5	75-84
Purdue U	IN	*		10	59-64
Queens C of CUNY	NY	*		60	3-4
Rice U	TX	*		5	75-84
Rutgers U	NJ	*		20	30-35
San Diego State U	CA	*		50	6-7
San Francisco State U	CA	*		6	70-74
Southern Illinois U at Carbondale	IL	13	32	15	40-45

Institution Name	State	Nº of Majors Enrolled 1972-73	Rank 1972 -73	Nº of Majors Enrolled 1985-86	Rank 1985 -86
Stanford U	CA	*		30	20-22
State U of New York at Albany	NY	*		16	39
State U of New York at Binghamton	NY	30	16	38	15
State U of New York at Buffalo	NY	31	15	12	49-52
State U of New York at Stony Brook	NY	35	12-13	35	17-19
Swarthmore C	PA	*		11	53-58
Syracuse U	NY	2	52	11	53-58
Temple U	PA	*		11	53-58
Tulane U	LA	3	47-51	6	70-74
U of Alabama at Birmingham	AL	*		2	93-97
U of Alaska	AK	*		7	67-69
U of Arizona	AZ	*		20	30-35
U of California, Berkeley	CA	74	3	50	6-7
U of California, Davis	CA	23	20-21	36	16
U of California, Irvine	CA	48	6	41	10-12
U of California, Los Angeles	CA	119	1	170	1
U of California, Riverside	CA	21	24-25	6	70-74
U of California, San Diego	CA	103	2	60	3-4
U of California, Santa Barbara	CA	*		27	24-25
U of California, Santa Cruz	CA	*		48	8-9
U of Chicago	IL	21	24-25	14	46-47
U of Cincinnati	OH	5	43-46	12	49-52
U of Colorado, Boulder	CO	*		35	17-19
U of Connecticut	CT	*		5	75-84
U of Georgia	GA	*		5	75-84
U of Hawaii at Hilo	HI	*		12	49-52
U of Hawaii at Manoa	HI	12	33-37	*	
U of Iowa	IA	*		25	26-28
U of Kansas	KS	23	20-21	30	20-22
U of Kentucky	KY	*		*	
U of Louisville	KY	*		*	
U of Maryland, College Park	MD	*		25	26-28
U of Massachusetts	MA	*		15	40-45
U of Massachusetts at Boston	MA	*		*	
U of Michigan	MI	40	8-10	20	30-35
U of Minnesota at Minneapolis	MN	37	11	41	10-12
U of Missouri at Columbia	MO	5	43-46	2	93-97
U of Montana	MT	3	47-51	4	85-89
U of New Hampshire	NH	*		11	53-58
U of New Mexico	NM	*		10	59-64
U of North Carolina	NC	3	47-51	8	66
U of Oklahoma	OK	*		15	40-45
U of Oregon	OR	10	39-40	40	13-14
U of Pennsylvania	PA	*		10	59-64
U of Pittsburgh	PA	*		11	53-58
U of Rochester	NY	*		4	85-89
U of Southern California	CA	12	33-37	15	40-45
U of Texas at Austin	TX	33	14	20	30-35
U of Texas at El Paso	TX	20	26-29	5	75-84
U of Toledo	OH	3	47-51	5	75-84

Institution Name	State	Nº of Majors Enrolled 1972-73	Rank 1972 -73	Nº of Majors Enrolled 1985-86	Rank 1985 -86
U of Utah	UT	*		30	20-22
U of Vermont	VT	3	47-51	3	90-92
U of Virginia	VA	*		10	59-64
U of Washington	WA	*		27	24-25
U of Wisconsin at Green Bay	WI	*		14	46-47
U of Wisconsin at Madison	WI	29	17	29	23
U of Wisconsin at Milwaukee	WI	6	41-42	10	59-64
U of the Pacific	CA	6	41-42	1	98-101
Washington State U	WA	*		*	
Washington U	MO	*		*	
Wayne State U	MI	*		4	85-89
West Virginia U	WV	*		10	59-64
Western Michigan U	MI	40	8-10	1	98-101
Yale U	CT	5	43-46	11	53-58
Total	110	1328		1914	

Key: * = not reported

Table US19. US Institutions Offering an Undergraduate Minor in Linguistics and Nº of Minors Enrolled in 1985-86 as Reported on the LUC Questionnaire

Institution Name	State	Nº of Minors Reported Enrolled	Rank
Barnard C of Columbia U	NY	3	41-50
Brandeis U	MA	0	62-66
Brigham Young U	UT	*	
Brooklyn C of CUNY	NY	2	51-57
Bucknell U	PA	2	51-57
California State U, Dominguez Hills	CA	10	10-17
California State U, Fresno	CA	3	41-50
California State U, Fullerton	CA	15	6-8
California State U, Long Beach	CA	*	
California State U, Northridge	CA	2	51-57
Central Connecticut State U	CT	2	51-57
Central U of Iowa (Central C)	IA	*	
Cleveland State U	OH	2	51-57
C of William and Mary	VA	10	10-17
Colorado C	CO	*	
Drew U	NJ	6	23-27
Eastern Michigan U	MI	4	38-40
Gallaudet C	DC	0	62-66
Georgetown U	DC	30	1
Harvard U	MA	*	
Indiana State U	IN	3	41-50
Indiana U	IN	5	28-37
Iowa State U of Science and Tech	IA	6	23-27
Lehman C of CUNY	NY	3	41-50
Middlebury C	VT	*	
Montclair State C	NJ	*	
New Mexico State U	NM	*	
Northeastern Illinois U	IL	15	6-8
Northeastern U	MA	6	23-27
Northern Illinois U	IL	*	
Oakland U	MI	5	28-37
Occidental C	CA	*	
Ohio State U	OH	3	41-50
Ohio U	OH	10	10-17
Pennsylvania State U	PA	1	58-61
Purdue U	IN	5	28-37
Queens C of CUNY	NY	10	10-17
Rutgers U	NJ	20	2-5
San Diego State U	CA	8	19
San Francisco State U	CA	4	38-40
San Jose State U	CA	15	6-8
Sonoma State U	CA	20	2-5
Southern Illinois U at Carbondale	IL	5	28-37
Southern Illinois U at Edwardsville	IL	1	58-61
State U of New York at Binghamton	NY	10	10-17
State U of New York at Buffalo	NY	6	23-27

Institution Name	State	Nº of Minors Reported Enrolled	Rank
State U of New York at Geneseo	NY	*	
State U of New York at Stony Brook	NY	5	28-37
Swarthmore C	PA	9	18
Syracuse U	NY	7	20-22
Temple U	PA	2	51-57
Texas A&M U	TX	12	9
U of Alabama at Birmingham	AL	3	41-50
U of Alaska	AK	5	28-37
U of Arizona	AZ	*	
U of Arkansas at Little Rock	AR	*	
U of California, Davis	CA	*	
U of California, Irvine	CA	*	
U of California, San Diego	CA	20	2-5
U of California, Santa Cruz	CA	*	
U of Delaware	DE	*	
U of Georgia	GA	0	62-66
U of Iowa	IA	0	62-66
U of Louisville	KY	*	
U of Maryland, Baltimore County	MD	*	
U of Maryland, College Park	MD	5	28-37
U of Massachusetts	MA	3	41-50
U of Michigan	MI	1	58-61
U of Minnesota at Duluth	MN	*	
U of Minnesota at Minneapolis	MN	3	41-50
U of Nevada, Reno	NV	*	
U of New Hampshire	NH	6	23-27
U of New Mexico	NM	7	20-22
U of North Carolina	NC	4	38-40
U of Oklahoma	OK	*	
U of Oregon	OR	2	51-57
U of South Florida	FL	*	
U of Southern California	CA	5	28-37
U of Texas at Austin	TX	20	2-5
U of Texas at El Paso	TX	3	41-50
U of Utah	UT	10	10-17
U of Vermont	VT	1	58-61
U of Virginia	VA	0	62-66
U of Wisconsin at Green Bay	WI	10	10-17
U of Wisconsin at Milwaukee	WI	5	28-37
Wayne State U	MI	7	20-22
West Virginia U	WV	5	28-37
Western Michigan U	MI	10	10-17
Yale U	CT	3	41-50
Total	89	425	

Key: * = not reported

Table US20. Enrollment in Linguistics Courses at US Institutions as Reported on the LUC Questionnaire

Institution Name	State	Average Enrollment Reported 1985-86	Rank
Barnard C of Columbia U	NY	80	72
Boston C	MA	15	110-114
Boston U	MA	15	110-114
Brandeis U	MA	60	81-86
Brigham Young U	UT	200	44-48
Brooklyn C of CUNY	NY	15	110-114
Brown U	RI	100	66-69
Bucknell U	PA	45	93-96
C of William and Mary	VA	190	49
California State U, Dominguez Hills	CA	150	55-58
California State U, Fresno	CA	250	33-39
California State U, Fullerton	CA	450	15-18
California State U, Long Beach	CA	250	33-39
California State U, Northridge	CA	45	93-96
Central Connecticut State U	CT	70	76-77
Central Michigan U	MI	90	70-71
Claremont C (Pitzer C, Pomona C)	CA	100	66-69
Cleveland State U	OH	45	93-96
Cornell U	NY	65	78-80
Drew U	NJ	20	107-109
Duke U	NC	150	55-58
Eastern Michigan U	MI	250	33-39
Florida Atlantic U	FL	75	73-75
Florida International U	FL	125	59
Gallaudet C	DC	30	100-106
Georgetown U	DC	375	23-24
Hamilton C	NY	50	88-92
Harvard U	MA	250	33-39
Indiana State U	IN	40	97-98
Indiana U	IN	350	25
Iowa State U of Science and Tech	IA	600	6-9
Lehman C of CUNY	NY	20	107-109
Macalaster C	MN	110	64-65
Michigan State U	MI	280	32
Montclair State C	NJ	150	55-58
New Mexico State U	NM	120	60-62
Northeastern Illinois U	IL	600	6-9
Northeastern U	MA	30	100-106
Northwestern U	IL	400	19-21
Oakland U	MI	680	5
Ohio State U	OH	800	3-4
Ohio U	OH	200	44-48
Pennsylvania State U	PA	225	40-41
Princeton U	NJ	60	81-86
Purdue U	IN	450	15-18

Institution Name	State	Average Enrollment Reported 1985-86	Rank
Queens C of CUNY	NY	600	6-9
Rice U	TX	50	88-92
Rutgers U	NJ	120	60-62
San Diego State U	CA	900	2
San Francisco State U	CA	30	100-106
San Jose State U	CA	55	87
Sonoma State U	CA	120	60-62
Southern Illinois U at Carbondale	IL	40	97-98
Southern Illinois U at Edwardsville	IL	15	110-114
Stanford U	CA	150	55-58
State U of New York at Albany	NY	250	33-39
State U of New York at Binghamton	NY	325	26
State U of New York at Buffalo	NY	300	27-31
State U of New York at Stony Brook	NY	375	23-24
Swarthmore C	PA	45	93-96
Syracuse U	NY	300	27-31
Temple U	PA	200	44-48
Texas A&M U	TX	70	76-77
Tulane U	LA	100	66-69
U of Alabama at Birmingham	AL	35	99
U of Alaska	AK	60	81-86
U of Arizona	AZ	225	40-41
U of California, Berkeley	CA	575	10-12
U of California, Davis	CA	165	54
U of California, Irvine	CA	250	33-39
U of California, Los Angeles	CA	800	3-4
U of California, Riverside	CA	30	100-106
U of California, San Diego	CA	1900	1
U of California, Santa Barbara	CA	200	44-48
U of California, Santa Cruz	CA	300	27-31
U of Chicago	IL	30	100-106
U of Cincinnati	OH	180	50-51
U of Colorado, Boulder	CO	380	22
U of Connecticut	CT	500	13
U of Georgia	GA	65	78-80
U of Hawaii at Hilo	HI	75	73-75
U of Hawaii at Manoa	HI	20	107-109
U of Illinois at Chicago	IL	250	33-39
U of Iowa	IA	400	19-21
U of Kansas	KS	90	70-71
U of Maryland, College Park	MD	210	43
U of Massachusetts	MA	575	10-12
U of Michigan	MI	60	81-86
U of Minnesota at Minneapolis	MN	575	10-12
U of Missouri at Columbia	MO	10	115-116
U of Montana	MT	100	66-69
U of New Hampshire	NH	200	44-48
U of New Mexico	NM	450	15-18
U of North Carolina	NC	300	27-31
U of Oklahoma	OK	50	88-92

Institution Name	State	Average Enrollment Reported 1985-86	Rank
U of Oregon	OR	450	15-18
U of Pennsylvania	PA	65	78-80
U of Pittsburgh	PA	60	81-86
U of Rochester	NY	30	100-106
U of Southern California	CA	175	52-53
U of Texas at Austin	TX	455	14
U of Texas at El Paso	TX	180	50-51
U of the Pacific	CA	15	110-114
U of Toledo	OH	110	64-65
U of Utah	UT	300	27-31
U of Vermont	VT	60	81-86
U of Virginia	VA	50	88-92
U of Washington	WA	400	19-21
U of Wisconsin at Green Bay	WI	115	63
U of Wisconsin at Madison	WI	215	42
U of Wisconsin at Milwaukee	WI	600	6-9
Vanderbilt U	TN	50	88-92
Wayne State U	MI	30	100-106
West Virginia U	WV	175	52-53
Western Michigan U	MI	10	115-116
Yale U	CT	75	73-75
Total	116	25400	

Table CA1. Alphabetic Listing of Canadian Institutions

Institution Name	City	Prov	D74	D78	D80	D82	D84	D87	Qst	Cat
Carleton U	Ottawa	ON	X	X	X	X	X	X	X	X
Concordia U	Montréal	PQ		X	X	X				
Lakehead U	Thunder Bay	ON		X						
McGill U	Montréal	PQ	X	X	X	X	X	X	X	X
Memorial U of Newfoundland	St John's	NF	X	X	X	X	X	X	X	X
Queen's U	Kingston	ON		X	X	X	X	X	X	
Simon Fraser U	Burnaby	BC	X	X		X	X	X	X	X
Sir George Williams U	Montréal	PQ	X							
U de Montréal	Montréal	PQ	X	X	X	X		X	X	
U de Sherbrooke	Sherbrooke	PQ	X	X						
U du Québec à Montréal	Montréal	PQ	X	X	X	X	X		X	
U Laval	Québec	PQ	X							
U of Alberta	Edmonton	AB	X	X	X	X	X	X	X	X
U of British Columbia	Vancouver	BC	X	X	X	X	X	X	X	X
U of Calgary	Calgary	AB	X	X	X	X	X	X	X	X
U of Manitoba	Winnipeg	MB	X	X	X	X	X	X		
U of New Brunswick	Fredericton	NB		X	X	X	X	X	X	X
U of Ottawa	Ottawa	ON	X	X	X	X	X	X	X	X
U of Saskatchewan	Saskatoon	SK	X	X	X	X	X	X	X	X
U of Toronto	Toronto	ON	X	X	X	X	X	X	X	X
U of Victoria	Victoria	BC	X	X	X	X	X	X	X	X
U of Western Ontario	London	ON	X	X	X	X	X	X	X	X
U of Windsor	Windsor	ON	X							
York U	North York	ON	X	X	X	X	X	X	X	X
Total NUMBER OF INSTITUTIONS		24	20	21	18	19	17	17	17	14

Key: Dnn = Listing in 19nn LSA Directory of Programs; Qst = Response to LUC Questionnaire; Cat = Entry in LUC Catalogue Prepared by Frank Heny

Table CA2. Listing of Canadian Institutions, by Province

Institution Name	City	Prov	D74	D78	D80	D82	D84	D87	Qst	Cat
U of Alberta	Edmonton	AB	X	X	X	X	X	X	X	X
U of Calgary	Calgary	AB	X	X	X	X	X	X	X	X
Simon Fraser U	Burnaby	BC	X	X		X	X	X	X	X
U of British Columbia	Vancouver	BC	X	X	X	X	X	X	X	X
U of Victoria	Victoria	BC	X	X	X	X	X	X	X	X
U of Manitoba	Winnipeg	MB	X	X	X	X	X	X		
U of New Brunswick	Fredericton	NB		X	X	X	X	X	X	X
Memorial U of Newfoundland	St John's	NF	X	X	X	X	X	X	X	X
Carleton U	Ottawa	ON	X	X	X	X	X	X	X	X
Lakehead U	Thunder Bay	ON		X						
Queen's U	Kingston	ON		X	X	X	X	X	X	
U of Ottawa	Ottawa	ON	X	X	X	X	X	X	X	X
U of Toronto	Toronto	ON	X	X	X	X	X	X	X	X
U of Western Ontario	London	ON	X	X	X	X	X	X	X	X
U of Windsor	Windsor	ON	X							
York U	North York	ON	X	X	X	X	X	X	X	X
Concordia U	Montréal	PQ		X	X	X				
McGill U	Montréal	PQ	X	X	X	X	X	X	X	X
Sir George Williams U	Montréal	PQ	X							
U de Montréal	Montréal	PQ	X	X	X	X		X	X	
U de Sherbrooke	Sherbrooke	PQ	X	X						
U du Québec à Montréal	Montréal	PQ	X	X	X	X	X		X	
U Laval	Québec	PQ	X							
U of Saskatchewan	Saskatoon	SK	X	X	X	X	X	X	X	X

Key: Dnn = Listing in 19nn LSA Directory of Programs; Qst = Response to LUC Questionnaire; Cat = Entry in LUC Catalogue Prepared by Frank Heny

Table CA3. Last Reported Status of Linguistics at Canadian Institutions Not Listed in the 1987 LSA Directory of Programs and Not Responding to the LUC Project

Institution Name	Prov	Ling Dept	Ling Prog	Ling Major	Ling Joint Major	Ling Minor	Ling MA	Ling PhD	Last Entry Year
Concordia U	PQ	X		X					1982
Lakehead U	ON				X				1978
Sir George Williams U	PQ	X		X	X				1974
U Laval	PQ	X		X			X	X	1974
U de Sherbrooke	PQ		X	X		X	X	X	1978
U of Windsor	ON		X	X					1974
Total number of institutions	6	3	2	5	2	1	2	2	

Last Entry Year	Nº of Institutions
1974	3
1978	2
1980	0

Last Entry Year	Nº of Institutions
1982	1
1984	0
Total	6

Table CA4. Status of Linguistics at Canadian Institutions Listed in the 1987 LSA Directory of Programs or Responding to the LUC Project

Institution Name	Prov	Ling Dept	Ling Prog	Ling Major	Ling Joint Major	Ling Minor	Ling MA	Ling PhD
Carleton University	ON	X		X	X	X		
McGill University	PQ	X		X		X	X	X
Memorial University of Newfoundland	NF	X		X		X	X	X
Queen's University	ON		X	X				
Simon Fraser University	BC	X		X	X	X	X	X
Université de Montréal	PQ	X		X			X	X
Université du Québec à Montréal	PQ	X		X			X	
University of Alberta	AB	X		X		X	X	X
University of British Columbia	BC	X		X			X	X
University of Calgary	AB	X		X		X	X	
University of Manitoba	MB	X		X			X	X
University of New Brunswick	NB		X	X	X	X		
University of Ottawa	ON	X		X		X	X	X
University of Saskatchewan	SK		X	X	X			
University of Toronto	ON	X		X	X	X	X	X
University of Victoria	BC	X		X			X	X
University of Western Ontario	ON		X	X	X			
York University	ON	X		X	X	X		
Total number of institutions	18	14	4	18	7	11	12	10

Table CA5. Canadian Institutions with Departments of Linguistics

Institution Name	Prov	Department Name	Year Estab
Carleton University	ON	Linguistics	1972
McGill University	PQ	Linguistics	1967
Memorial U of Newfoundland	NF	Linguistics	1968
Simon Fraser University	BC	Linguistics	1988
University de Montréal	PQ	Linguistique et Philologie	b1972
Université du Québec à Montréal	PQ	Linguistique	1970
University of Alberta	AB	Linguistics	1969
University of British Columbia	BC	Linguistics	1968
University of Calgary	AB	Linguistics	1970
University of Manitoba	MB	Linguistics	1987
University of Ottawa	ON	Linguistics	1968
University of Toronto	ON	Linguistics	1974
University of Victoria	BC	Linguistics	1965
York University	ON	Languages, Literatures & Linguistics	b1972

Year Established	№ of Departments
1965-69	6
by 1972	2
1970-74	4
1975-79	0

Year Established	№ of Departments
1980-84	0
1985-present	2
Total	14

Other Discipline, if any	№ of Departments
none	12
Languages	1
Philology	1
Total	14

Table CA6. Canadian Institutions with Programs in Linguistics

Institution Name	Prov	Program Name	Year Estab
Queen's University	ON	Linguistics and Languages	1979
University of New Brunswick	NB	Linguistics and French/English	1976
University of Saskatchewan	SK	Linguistics Committee	1974
University of Western Ontario	ON	Linguistics	1970

Year Established	Nº of Programs
before 1965	0
1965-69	0
1970-74	2
1975-79	2

Year Established	Nº of Programs
1980-84	0
1985-present	0
Total	4

Table CA7. Host Departments for Canadian Programs in Linguistics

Institution Name	Prov	Host Department
Queen's University	ON	English
University of New Brunswick	NB	French
University of Saskatchewan	SK	Anthropology
University of Western Ontario	ON	Anthropology

Type of Host Dept	Nº
English	1
other languages	1
Anthropology	2
Total	4

Table CA8. Previous Status of Linguistics Departments or Programs at Canadian Institutions

Institution Name	Prov	Status	Year Estab	Previous Status	Year Estab
Carleton U	ON	Dept	1972	Interdepartmental Linguistics Program	1969
U of Alberta	AB	Dept	1969	Interdepartmental Program	1962
U of Manitoba	MB	Dept	1987	Linguistics Program	1969
U of Toronto	ON	Dept	1974	Interdepartmental Program	1967

Type of Change	Nº of Institutions	Avg Duration
Prog to Dept	4	9 years

Table CA9. Administrative Structure into Which Linguistics Fits at Canadian Institutions, Based on LUC Questionnaire and Catalog

Institution Name	Prov	Status	Administrative Structure
Carleton University	ON	Dept	Faculty of Arts
McGill University	PQ	Dept	Faculty of Arts
Memorial University of Newfoundland	NF	Dept	Faculty of Arts
Queen's University	ON	Prog	Faculty of Arts and Sciences
Simon Fraser University	BC	Dept	Faculty of Arts
Université de Montréal	PQ	Dept	Faculty of Arts and Sciences
Université du Québec à Montréal	PQ	Dept	Humanities
University of Alberta	AB	Dept	Faculty of Arts
University of British Columbia	BC	Dept	Faculty of Arts
University of Calgary	AB	Dept	Faculty of Social Sciences
University of New Brunswick	NB	Prog	Faculty of Arts
University of Ottawa	ON	Dept	Faculty of Arts
University of Saskatchewan	SK	Prog	College of Arts and Sciences
University of Toronto	ON	Dept	Humanities Division
University of Victoria	BC	Dept	Humanities Division
University of Western Ontario	ON	Prog	Faculty of Social Science
York University	ON	Dept	Faculty of Arts

Structure	Nº of Institutions
Arts, Arts & Sciences, etc.	12
Humanities	3
Social Science	2
Total	17

Table CA10. Canadian Institutions Offering Joint Majors in Linguistics with Other Disciplines, as Reported to the LUC Project

Institution Name	Prov	Other Disciplines
Carleton U	ON	Honours
Simon Fraser U	BC	Honours
U of New Brunswick	NB	French, English
U of Saskatchewan	SK	English, French, German, Psychology, Philosophy, Anthropology
U of Toronto	ON	Psychology, Mathematics, Languages
U of Western Ontario	ON	
York U	ON	

Other Discipline	Nº of Departments	Other Discipline	Nº of Departments
English	2	Honours	2
French	2	Anthropology	1
foreign languages	2	Mathematics	1
Psychology	2	Philosophy	1

Total number of institutions 7; Other institutions 13

Table CA11. Other Departments Offering Linguistics Courses at Canadian Institutions as Reported on the LUC Questionnaire

Institution Name	Prov	Discipline
U of Alberta	AB	Romance Languages, Germanic Languages, Slavic & East European Studies
U of Western Ontario	ON	Psychology, Philosophy, Modern Languages

Table CA12. Number of BA Degrees in Linguistics Granted in Selected

Discipline Area	Nº of Departments
foreign lgs and lits	4
Philosophy	1
Psychology	1

Total number of institutions 2; DEPARTMENTS 6

Table CA12. Number of BA Degrees in Linguistics Granted in Selected Academic Years from 1972-73 to 1985-86 by Canadian Institutions According to the LSA Directory of Programs, Arranged Alphabetically by Granting Institution

Institution Name	City	Prov	1972 -73	76 -77	78 -79	80 -81	81 -82	82 -83	84 -85	85 -86
Carleton U	Ottawa	ON	6	16	30	30	12	14	10	17
Concordia Univ*	Montréal	PQ	0	1	0	0	0	0	0	0
McGill U	Montréal	PQ	0	15	0	0	11	7	12	10
Memorial U of Newfoundland	St John's	NF	5	2	2	12	4	7	6	10
Queen's U	Kingston	ON	0	0	0	1	0	1	2	3
Simon Fraser U	Burnaby	BC	14	11	0	0	0	0	15	19
Sir George Williams Univ*	Montréal	PQ	3	0	0	0	0	0	0	0
U de Montréal	Montréal	PQ	14	30	0	36	22	0	11	6
U de Sherbrooke*	Sherbrooke	PQ	8	20	0	0	0	0	0	0
U du Québec à Montréal	Montréal	PQ	10	25#	6	22	22	15	20	20
U of Alberta	Edmonton	AB	3	2	8	6	8	1	8	8
U of British Columbia	Vancouver	BC	12	6	40	15	14	16	28	23
U of Calgary	Calgary	AB	5	0	5	1	3	4	4	4
U of Manitoba	Winnipeg	MB	4	0	0	0	0	0	0	0
U of New Brunswick	Fredericton	NB	0	0	1	0	0	1	2	2
U of Ottawa	Ottawa	ON	6	12	40	28	27	18	20	22
U of Saskatchewan	Saskatoon	SK	0	3	2	0	1	1	1	1
U of Toronto	Toronto	ON	0	0	0	12	18	14	41	39
U of Victoria	Victoria	BC	12	6	10	17	10	15	19	30
U of Western Ontario	London	ON	0	2	2	5	5	5	9	10
York U	North York	ON	0	8	14	5	22	24	20	20
Total		21	102	159	160	190	179	143	228	244

Key:* = Program Not Listed in 1987 Directory; # = Adjusted Figure

Table CA13. Number of BA Degrees in Linguistics Granted in Selected Academic Years from 1972-73 to 1985-86, by Province

Province	1972 -73	1976 -77	1978 -79	1980 -81	1981 -82	1982 -83	1984 -85	1985 -86	Total	Rank
Alberta	8	2	13	7	11	5	12	12	70	4
British Columbia	38	23	50	32	24	31	62	72	332	3
Manitoba	4	0	0	0	0	0	0	0	4	8
New Brunswick	0	0	1	0	0	1	2	2	6	7
Nova Scotia	0	0	0	0	0	0	0	0	0	9-10
Newfoundland	5	2	2	12	4	7	6	10	48	5
Ontario	12	38	86	81	84	76	102	111	590	1
Prince Edward Island	0	0	0	0	0	0	0	0	0	9-10
Québec	35	91	6	58	55	22	43	36	346	2
Saskatchewan	0	3	2	0	1	1	1	1	9	6
Total	102	159	160	190	179	143	228	244	1405	

Table CA14. Canadian Institutions Granting One or More Undergraduate Degrees in Linguistics in 1976-77 According to 1978 LSA Directory of Programs

Institution Name	City	Prov	Nº of Degrees	Rank
Université de Montréal	Montréal	PQ	30	1
Université du Québec à Montréal	Montréal	PQ	25#	2
Université de Sherbrooke*	Sherbrooke	PQ	20	3
Carleton University	Ottawa	ON	16	4
McGill University	Montréal	PQ	15	5
University of Ottawa	Ottawa	ON	12	6
Simon Fraser University	Burnaby	BC	11	7
York University	North York	ON	8	8
University of British Columbia	Vancouver	BC	6	9-10
University of Victoria	Victoria	BC	6	9-10
University of Saskatchewan	Saskatoon	SK	3	11
Memorial University of Newfoundland	St John's	NF	2	12-14
University of Alberta	Edmonton	AB	2	12-14
University of Western Ontario	London	ON	2	12-14
Concordia University*	Montréal	PQ	1	15
Total			159	

Key: * = Program not Listed in 1987 Directory; # = Adjusted Figure

Table CA15. Canadian Institutions Granting One or More Undergraduate Degrees in Linguistics in 1985-86 According to 1987 LSA Directory of Programs and LUC Questionnaire

Institution Name	City	Prov	Nº of Degrees	Rank
University of Toronto	Toronto	ON	39	1
University of Victoria	Victoria	BC	30	2
University of British Columbia	Vancouver	BC	23	3
University of Ottawa	Ottawa	ON	22	4
Université du Québec à Montréal	Montréal	PQ	20	5-6
York University	North York	ON	20	5-6
Simon Fraser University	Burnaby	BC	19	7
Carleton University	Ottawa	ON	17	8
McGill University	Montréal	PQ	10	9-11
Memorial University of Newfoundland	St John's	NF	10	9-11
University of Western Ontario	London	ON	10	9-11
University of Alberta	Edmonton	AB	8	12
Université de Montréal	Montréal	PQ	6	13
University of Calgary	Calgary	AB	4	14
Queen's University	Kingston	ON	3	15
University of New Brunswick	Fredericton	NB	2	16
University of Saskatchewan	Saskatoon	SK	1	17
Total			244	

Table CA16. Number of Undergraduate Degrees in Linguistics Awarded in 1976-77 by Province, According to 1978 LSA Directory of Programs

Province	Nº of Degrees	Rank
Québec	91	1
Ontario	38	2
British Columbia	23	3
Saskatchewan	3	4
Alberta	2	5-6
Newfoundland	2	5-6
Manitoba	0	7-10
New Brunswick	0	7-10
Nova Scotia	0	7-10
Prince Edward Island	0	7-10
Total	159	

Table CA17. Number of Undergraduate Degrees in Linguistics Awarded in 1985-86 by Province, According to 1987 LSA Directory of Programs

Province	Nº of Degrees	Rank
Ontario	111	1
British Columbia	72	2
Québec	36	3
Alberta	12	4
Newfoundland	10	5
New Brunswick	2	6
Saskatchewan	1	7
Manitoba	0	8-10
Nova Scotia	0	8-10
Prince Edward Island	0	8-10
Total	244	

Table CA18. Canadian Institutions Offering an Undergraduate Major in Linguistics, Number of Majors Enrolled in 1972-73 as Reported in the 1974 Directory of Programs, and Number of Majors Enrolled in 1985-86 as Reported on the LUC Questionnaire

Institution Name	Prov	Nº of Majors Enrolled 1972-73	Rank 1972 -73	Nº of Majors Enrolled 1985-86	Rank 1985 -86
Carleton U	ON	58	3	75	2
McGill U	PQ	*		56	3
Memorial U of Newfoundland	NF	6	6	35	9
Queen's U	ON	*		40	7
Simon Fraser U	BC	*		42	6
U de Montréal	PQ	149	1	*	
U du Québec à Montréal	PQ	75	2	180	1
U of Alberta	AB	5	7-8	20	13
U of British Columbia	BC	20	4	43	5
U of Calgary	AB	*		37	8
U of Manitoba	MB	4	9	*	
U of New Brunswick	NB	*		4	16
U of Ottawa	ON	*		27	12
U of Saskatchewan	SK	5	7-8	10	15
U of Toronto	ON	*		11	14
U of Victoria	BC	*		50	4
U of Western Ontario	ON	*		30	10-11
York U	ON	10	5	30	10-11
Total	18	332		690	

Table CA19. Canadian Institutions Offering an Undergraduate Minor in Linguistics and Number of Minors Enrolled in 1985-86 as Reported on the LUC Questionnaire

Institution Name	Prov	Nº of Minors Enrolled 1985-86	Rank
Carleton U	ON	27	6
McGill U	PQ	0	10
Memorial U of Newfoundland	NF	55	3
Simon Fraser U	BC	20	7-8
U du Québec à Montréal	PQ	200	1
U of Alberta	AB	*	
U of Calgary	AB	12	9
U of New Brunswick	NB	20	7-8
U of Ottawa	ON	40	4
U of Toronto	ON	69	2
York U	ON	30	5
Total	11	473	

Key: * = not reported

Table CA20. Enrollment in Linguistics Courses at Canadian Institutions as Reported on the LUC Questionnaire

Institution Name	Prov	Average Enrollment Reported 1985-86	Rank
Carleton U	ON	350	11
McGill U	PQ	400	9-10
Memorial U of Newfoundland	NF	700	5
Queen's U	ON	240	13
Simon Fraser U	BC	650	6
U de Montréal	PQ	175	15
U du Québec à Montréal	PQ	2000	1
U of Alberta	AB	400	9-10
U of British Columbia	BC	490	8
U of Calgary	AB	600	7
U of New Brunswick	NB	50	16-17
U of Ottawa	ON	1365	2
U of Saskatchewan	SK	50	16-17
U of Toronto	ON	1000	3-4
U of Victoria	BC	1000	3-4
U of Western Ontario	ON	230	14
York U	ON	300	12
Total	17	10000	

APPENDIX 3

Using Existing Resources to Develop an Undergraduate Linguistics Major

by

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The views expressed are those of the authors and do not necessarily reflect the position of the LSA or the National Endowment for the Humanities.

The Linguistics in the Undergraduate Curriculum Project was funded by the National Endowment for the Humanities, Grant #EH-20558-85, D. Terence Langendoen, Principal Investigator.

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PREFACE

The Linguistics in the Undergraduate Curriculum (LUC) project is an effort by the Linguistic Society of America (LSA) to study the state of undergraduate instruction in linguistics in the United States and Canada and to suggest directions for its future development. It was supported by a grant from the National Endowment for the Humanities during the period 1 January 1985-31 December 1987. The project was carried out under the direction of D. Terence Langendoen, Principal Investigator, and Secretary-Treasurer of the LSA. Mary Niebuhr, Executive Assistant at the LSA office in Washington, DC, was responsible for the day-to-day administration of the project with the assistance of Nicole VandenHeuvel and Dana McDaniel.

Project oversight was provided by a Steering Committee that was appointed by the LSA Executive Committee in 1985. Its members were: Judith Aissen (University of California, Santa Cruz), Paul Angelis (Southern Illinois University), Victoria Fromkin (University of California, Los Angeles), Frank Heny, Robert Jeffers (Rutgers University), D. Terence Langendoen (Graduate Center of the City University of New York), Manjari Ohala (San Jose State University), Ellen Prince (University of Pennsylvania), and Arnold Zwicky (The Ohio State University and Stanford University). The Steering Committee, in turn, received help from a Consultant Panel, whose members were: Ed Battistella (University of Alabama, Birmingham), Byron Bender (University of Hawaii, Manoa), Garland Bills (University of New Mexico), Daniel Brink (Arizona State University), Ronald Butters (Duke University), Charles Cairns (Queens College of CUNY), Jean Casagrande (University of Florida), Nancy Dorian (Bryn Mawr College), Sheila Embleton (York University), Francine Frank (State University of New York, Albany), Robert Freidin (Princeton University), Jean Berko-Gleason (Boston University), Wayne Harbert (Cornell University), Alice Harris (Vanderbilt University), Jeffrey Heath, Michael Henderson (University of Kansas), Larry Hutchinson (University of Minnesota, Minneapolis), Ray Jackendoff (Brandeis University), Robert Johnson (Gallaudet College), Braj Kachru (University of Illinois, Urbana), Charles Kreidler (Georgetown University), William Ladusaw (University of California, Santa Cruz), Ilse Lehiste (The Ohio State University), David Lightfoot (University of Maryland), Donna Jo Napoli (Swarthmore College), Ronald Macaulay (Pitzer College), Geoffrey Pullum (University of California, Santa Cruz), Victor Raskin (Purdue University), Sanford Schane (University of California, San Diego), Carlota Smith (University of Texas, Austin), Roger Shuy (Georgetown University), and Jessica Wirth (University of Wisconsin, Milwaukee).

ERRATA

P. 2 The last paragraph should begin:

In the past, universities and colleges have often placed linguistics (in some cases as a semi-autonomous program) within the English or Anthropology Departments. This status persists in a very few cases and recently linguistics has sometimes been placed within the Psychology department. For further information on the administrative affiliation of linguistic programs, see a separate LUC Project report titled: "The Status of Undergraduate Education in Linguistics in the United States and Canada."....

(NOTE: There is no report titled "Brink/Raskin Questionnaire: An Analysis of Undergraduate Linguistics Programs in the United States and Canada.")

This report is aimed at linguists who wish to initiate a full-fledged undergraduate major in linguistics. It assumes the existence of service courses in linguistics (or even a minor), but no major. The report will attempt to address the questions and concerns administrators may have in deciding whether to implement such a major.

1. What objective would such a degree program serve other than preparing students for advanced study in linguistics?

(a) A B.A. in linguistics provides a broad liberal arts education emphasizing the study of language, treating language both as a fundamental human faculty and as a changing social institution. (Linguistics is the discipline that encompasses all areas related to the scientific study of the nature, structure, and function of language.)

(b) Such a degree would also provide a pre-professional major for certain fields. Linguistics has been recognized as a valuable pre-professional major, for example, for law, not only because it is methodologically varied, employs rigorous means of analysis, and develops critical thinking, but also because linguistics has contributed to: the evaluation of voice-print evidence, interpreting the complex language of statutes and contracts, analyzing ambiguity and presuppositions (e.g., in testimony or in cross-examination), elucidation of attitudes towards language, and attempting to interpret and make uniform different states' laws covering the same area.

(c) It also provides preparation for advanced study in fields such as Anthropology, Business, Communications, Computer Science, Education (Language Arts and Language teaching), Journalism, Neurosciences (for the study of, e.g., dyslexia and aphasia), Speech & Hearing Sciences, Philosophy, and Psychology.

(d) Along with preparing students for further study in areas mentioned under (c), the major would also prepare students for careers in fields where the knowledge of linguistics has proven essential. We give just a couple of examples here, for additional ones the reader is referred to the 'advocacy statements' available from the LSA.

--Second language teaching in general, and teaching English as a second language (TESL) in particular.

--Communication between humans and machine using natural (including spoken) language (a task central to artificial intelligence and robotics). Jobs for linguistics majors could involve the following types of tasks: Evaluation, selection, implementation, and training of others in use of commercially-available linguistic tools for word processing, e.g., spelling checkers/correctors, grammar/style checkers; using and training others to use commercially-available speech processing devices, including text-to-speech synthesis, automatic speech recognition systems; constructing dictionaries, and glossaries for specialized purposes; translating experts' statements into LISP statements for expert systems; computer aids for the disabled (blind, paralyzed, deaf).

--A B.A. in linguistics serves, as does any liberal arts degree, to qualify a graduate for sales and management training programs in business and industry. Students with this degree compete favorably with those from other humanities and social science disciplines for entry-level positions in public relations, commerce (e.g. banking), publishing (e.g., editing, lexicography), and other fields requiring analytical, communication, and research skills, e.g., technical writing, translation, government and non-profit language research organizations, social service groups.

It should be mentioned that although not many universities have "tracked" their graduates for employment obtained after graduating, information from one that did, namely UCLA, supports the above statements regarding job possibilities for graduates in linguistics. UCLA surveyed their (B.A.) graduates of 1981-82 and 1985-86 via questionnaire. Of the 74 respondents, only six of those interested in jobs were unemployed. The rest were employed in careers such as business (sales and marketing, managerial), law, computing, technical writing, teaching. A number of them were continuing further studies in fields such as law, speech pathology, TESL, psychology, and linguistics.

2. Administrative status

Where should the linguistics program be housed: under which school and which department? Linguistics, in part for historical reasons and in part because of its nature, is sometimes seen as essentially inter-disciplinary in character. This has contributed to the setting up of inter-departmental programs at a great number of institutions over the past few decades. The more successful of these have tended to gain independent status, often as autonomous departments within the faculty/college of Humanities or within Social Sciences. A case could even be made to house linguistics with the natural sciences (cf. G.K. Pullum 'Topic...Comment', *Natural Language and Linguistic Theory* 3, (1985) pp. 107-112). There are a few long established inter-departmental programs which continue to function effectively, but in general it seems that while there is every justification for expecting that linguists will provide service to the university community as a whole, and for expecting academics whose object of study is language will have close interdisciplinary ties to many other administrative units, the systematic, scientific study of language is now so well-established, independent and mature a discipline that it will be able to best serve that community if established as a separate linguistics department as early as possible.

In the past, universities and colleges have often placed linguistics (in some cases as a semi-autonomous program) within the English or Anthropology departments. This status persists in a very few cases and recently linguistics has sometimes been placed within the Psychology department. For further information on the administrative affiliation of linguistic programs, see the attached 'Brink/Raskin Questionnaire: An Analysis of Undergraduate Linguistics Programs in the United States and Canada.' While there is obviously some justification for placing a new venture within some existing department, the field now has an internal integrity and a basic methodology which makes it very hard for linguists to function effectively in a university setting without some autonomy--and there are good academic grounds for thinking that none of the above arrangements will provide a congenial environment within which linguists can effectively serve the university. Problems arise when faculty who know little about the highly complex area of linguistics have to make decisions which affect linguistics in the area of personnel, curriculum, and allocation of resources.

3. Resources required for initiating the major.

These would differ depending on whether the existing program was a minor, a minor plus a graduate program, or only a graduate program. The cost of setting up a major would also differ depending on whether just a general linguistics B.A. was to be offered or whether special emphases such as natural language processing by computers are being planned. If the campus already has a minor and a graduate program the cost of offering a major will be minimal.

Courses & faculty

Although there are no prescribed set of core courses for a major in linguistics, most universities offering a B.A. in linguistics seem to include what could be called a traditional core. Along with one or two general introductory courses in linguistics (Introduction to linguistics, Introduction to language) this usually includes courses in the following:

Phonetics/Phonology

Syntax/Semantics

Historical-comparative and/or Typological Linguistics

(Some universities have separate courses in each of the areas of phonetics, phonology, syntax and semantics.) If the campus already has a minor and/or graduate program in linguistics most of these courses would already be existing offerings. Also, it is possible that historical-comparative linguistics or courses in language typology might be existing courses in other departments, such as the department(s) that teach foreign languages. However it must be emphasized that it is essential that the core courses be taught by faculty with degrees in linguistics specializing in the areas listed above. Thus to initiate the major there should be at least two faculty positions assigned to the program, one for a specialist in phonetics/phonology and the other for one in syntax/semantics (although it would be advisable to start with at least three positions to give the breadth and intellectual stimulation required). Additional courses required to 'flesh out' the major could either be additional offerings in linguistics (morphology, field methods, discourse analysis, sociolinguistics, psycholinguistics, etc) or relevant courses from other departments. A campus wishing to offer some special emphases within the major (e.g., Natural Language and Computers, TESL) will naturally offer courses in the specialized areas beyond the core. A sample program from a university emphasizing theoretical descriptive linguistics in the major is given in the advocacy statement by Jorge Hankamer, 'The UCSC Linguistics Major', available from the LSA.

Crosslisting linguistics courses for graduate and undergraduate credit

Another question may arise for universities that have a graduate program in linguistics and also allow the option of crosslisting courses for both graduate and undergraduate credit. Should existing courses be crosslisted for both graduate and undergraduate credit? There are pros and cons to the issue. In favor of crosslisting there are of course budgetary advantages. There are also some instructional advantages: it is good for undergraduates to be treated as 'adults', i.e., to be reading the same literature as graduate students. And it is beneficial for the graduate students in that undergraduates often ask some rather penetrating basic questions. Finally, the rather special character of linguistics as a graduate discipline--it is still true that many students enter such a program with little course work specifically in linguistics--ensures that many introductory courses will have graduate as well as undergraduate enrollment. The disadvantages are that the content may be too technical for some undergraduates; that assignments requiring original research papers may be inappropriate for some undergraduates; and that instructors might have to grade undergraduates and graduates using different criteria.

Library resources, equipment & other specialized material required to initiate the major:

If the campus already has a graduate program, the library resources should be adequate. If not, additional library resources will be required. The LSA is prepared to give some guidance; see the document by Judith Aissen, 'Library List: A Suggested Library Collection for Undergraduate Linguistics Programs', available from the LSA. With regards to equipment, although some areas of linguistics are enhanced by the availability of specialized equipment, it is not a hardware-dependent discipline. However, depending on which of the technical areas the program wishes to emphasize, some equipment might be required. For example, a natural language and computers emphasis would require computational facilities and some staff for operation and maintenance. Also, the teaching of phonetics is generally enhanced by the availability of a lab, especially if speech synthesis or automatic speech recognition are to be covered.

3. Difference between the proposed degree program and other similar ones offered in the geographical vicinity.

Inevitably administrators contemplating the introduction of an undergraduate degree in linguistics will have to ask the question of how the degree differs from similar degrees offered by neighboring institutions, i.e., will the proposed program fill an identifiable niche in the local ecology of higher education? The answer to this question will of course vary depending on the location of the campus, the nature of the students, and the interests of its faculty. Some campuses have emphasized the Liberal Arts & Science profile of linguistics and others its technical preprofessional character. Yet others have emphasized both. It is one of the positive characteristics of the discipline of linguistics that a good major program can be constructed with different types of profiles. The 'advocacy statements' available from the LSA are sufficiently varied to give administrators considerable choice in which areas to emphasize based on the characteristics of their campus.

APPENDIX 4-A

Applied Linguistics: An Overview

by

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The views expressed are those of the authors and do not necessarily reflect the position of the LSA or the National Endowment for the Humanities.

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PREFACE

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No discussion of trends, developments, or scholarship in applied linguistics can be launched without adequate consideration of what applied linguistics as a term of reference and as a field of inquiry has meant to both scholars and practitioners. This issue, although basic to an understanding of the topic, is far from a straightforward one to address. Linguistics, itself, is a rather young discipline without benefit of a lengthy, established tradition to dictate its scope and focus. Unlike so many other fields among the humanities and the social or physical sciences, linguistics has evolved relatively recently as the science of language. Complicating matters even more is the fact that this evolvement has proceeded along lines which have occasionally appeared divergent, if not even conflicting. On the one hand, there has been a tendency for linguistics and linguists to narrow the investigation of language to issues dealing with the nature of language in a rather restricted sense. Key elements in this progression have been the attempts to refine the ways in which we can explain the many interlocking features and properties of individual languages and of language in its most universal sense. How best, for example, can we understand the systems of sounds employed within human languages? How do these sounds and sound systems interact with the ways in which words are combined within what is generally referred to as grammar? In what ways do these sounds, sound systems, and grammatical features relate to the systems of meanings conveyed by words and groups of words within languages?

While such simplistic terms cannot adequately describe the full extent of such inquiry, it is somewhat different from many other lines of linguistic investigation which have broadened the questions posed about language, its nature, and its use. By establishing clear links with other disciplines, most noticeably psychology and sociology, a range of other questions have been put forward in an effort to expand our understanding of language. How do children acquire their first language? What regional and social varieties exist among languages as actually used in numerous settings and what factors contribute to the maintenance or spread of these varieties? What combination of factors tend to affect the development or evolvement of bilingual or multilingual societies? How does an understanding of the nature of language and the organization of a particular language assist those involved in the planning and process of teaching those languages?

These are only a very few of the kinds of issues explored in an expanded agenda of linguistic investigation. It is such issues and the extension of them to numerous language problems in the real world which have accumulated to provide the foundation for what has become known as applied linguistics. It is obvious that in this brief overview we cannot expect to provide a comprehensive or exhaustive explanation of what is included in the field of applied linguistics. What we have attempted to do, however, is to explore the range of topics which have been affected by linguistics and language study and to summarize the discussions which have taken place among those in the field to clarify the nature and scope of applied linguistics. Among the areas most directly linked to and influenced by linguistics within the United States has been the network of persons, programs, and organizations dealing with the teaching of English as a second or foreign language. Our summary will, therefore, pay particular attention to the nature and development of this relationship.

Definitions

As difficult as it may be to define linguistics, attempting to provide a definition for applied linguistics has been even more frustrating. This has not prevented key members of the profession, either individually or collectively, from addressing this issue and exploring some guidelines. Much of this activity has been informal, taking the form of discussions at professional conferences, panels and forums, letters appearing in journals or related publications, and even in minutes or proceedings from deliberations at regional, national and international conferences. Some of this introspection has led to more formal statements about the topic, the most notable of which is Robert Kaplan's collection of articles On the Scope of Applied Linguistics (Newbury House, 1980). American, British, Canadian and Australian professionals put forward in their individual contributions their views on both the nature of applied linguistics and the work of applied linguists. One common theme appears in all of the remarks on this subject: applied linguistics is not simply the application of linguistics.

This statement encompasses two key concepts vital to an understanding of the nature of applied linguistics. First, applied linguistics does not mean that the theories and principles of language are taken as is and transferred directly to any "applied" activity. Whether we are speaking of language teaching, speech therapy, translation, lexicography, or any of the many language related issues, problems, and activities which have engaged the attention of professionals in numerous, diverse situations, it is inappropriate and counterproductive to expect that the formal principles and theories of linguistics can be "used" in any direct manner. The inappropriateness stems from the fact that the principles and theories of language as developed by linguists remain exactly that -- attempts to advance our understanding of the nature of language. Such a goal is related to but different from the objectives of work done in fields such as those mentioned above. Moreover, as is the case in any science, the practitioners share the results of their work first and foremost with their colleagues. Linguists, as do physicists, psychologists, or philosophers, shape the existing views of their science in terms relevant to their peers and not expressly with other audiences in mind.

In cases where attempts have been made to draw close and direct links between linguistics and other fields, we have often found examples of counterproductive results. Such was the situation when transformational-generative grammar became the leading approach to language description and linguistic theory in the 1960's and 70/s. In the rush to apply this approach, and particularly its specific representation of English grammar, to the teaching of English both in first and second language situations, textbooks and other materials were written and disseminated replete with transformational rules as their basic orientation. The result was that this emphasis on the linguistic aspect of what was being taught, especially in such a pure form, led to the exclusion of many other clearly relevant and essential aspects of language teaching. Thus, the second concept to be stressed with regard to the nature of our subject becomes apparent.

Applied linguistics does not mean that linguistics, even indirectly, is turned to as the sole discipline to assist in language related issues and activities. It has become increasingly clear that such activities must be dealt with in an interdisciplinary fashion, with linguistics playing but one element in a combined panoply of sources providing guidance, support and information. In positive terms, then, applied linguistics refers to the broad range of activities which deal with language related issues and problems and which bring to bear on these problems insights from linguistics and other relevant disciplines. In very similar terms Peter Strevens has identified applied linguistics as "a multidisciplinary approach to the solution of language based problems." As such, it would be inappropriate to restrict the field only to certain designated areas of investigation. While some areas have long been considered a part of applied linguistics, others have only more recently become included and even more will no doubt be added in the future. Part of the attractiveness of applied linguistics is the open-ended nature of the field. The all-pervasiveness of language is reflected in the variety of directions pursued within applied linguistics and by applied linguists. Some sense of the scope of these directions can be seen in this brief summary.

Scope

Trying to capture the flavor of a field as dynamic as applied linguistics is somewhat analogous to aiming at a moving target. More appropriate, perhaps, would be the image of a multi-faceted target moving in a number of directions simultaneously. As difficult as this may appear, some effort must be made to move beyond the level of definition and to convey, even if only in summary fashion, a sense of the work which has typically engaged the attention of applied linguists. Some sources of such information are the professional journals, books, and monographs in which applied linguists share the results of their research and related work. A number of volumes have appeared providing in anthology form collections of writings on various aspects of the field (see list of resources attached). A journal appearing three times a year entitled Applied Linguistics serves as a forum for reporting the work of applied linguists primarily in Great Britain and the United States. The journal is a joint effort of the British Association of Applied Linguistics (BAAL) formed in 1967 and its American counterpart, the American Association of Applied Linguistics (AAAL) established ten years later. Finally, an annual series of books entitled the Annual Review of Applied Linguistics has appeared since 1980, some issues devoted to a single theme, and others including a range of topics. The 1985 issue of this series gives a particularly good indication of the scope of applied linguistics. The volume includes entries on the following topics:

1. Second Language Acquisition and Teaching -- methodology, learning processes, curriculum design, etc.

2. Language and Education -- structure of classroom lessons, teacher-student talk, cultural differences, etc.

3. Language and Computers -- natural language processing, concordance/dictionary making, machine translation, computer assisted

language learning, etc.

4. Language and Law -- courtroom language, language of laws, translation of proceedings, language as evidence, etc.

5. Language and Medicine -- doctor/patient discourse, licensing policies, bilingual services, etc.

6. Language and Science -- scientific discourse, translation, discourse patterns within disciplines, etc.

7. Language and Media -- the nature of news, advertising, cross-cultural differences, etc.

8. Language and Politics -- propoganda, political and ideological discourse, etc.

9. Language and Literacy -- basic literacy, cross-cultural literacy, bilingual/multilingual education, etc.

10. Language and Translation -- interpreting, machine translation, contrastive discourse patterns, etc.

The above areas often overlap and precise boundaries between subject areas can be difficult to delimit. Certainly the list of areas which are of interest can be expanded and undoubtedly new areas of applied linguistic research will emerge in the future. In fact, some believe that since language itself is a basic human activity, applied linguistics can be of value in most domains of human interaction.

Within such a range of activities one area has been consistently prominent. Because of the formal and informal association of appled linguistics with education that area is worthy of particular reference here. Even in this case some selection is necessary, acknowledging from the start that our discussion cannot be comprehensive. With this in mind, we have summarized some of the issues and questions representative of the involvement of language in education within four subcategories. The first deals with the matter of language planning. The second concerns the role of language within the context of refugee and immigrant programs. The third includes issues related to the role of dialects and their impact on educational matters. Finally, with particular reference to English, there is the question of international varieties of that language and the growing role of such phenomena in the world of education. In some cases the focus of our review will be more directly tied to the U.S. context. In others it will be appropriate to broaden the discussion to include issues which are relevant in a much more extended frame of reference. It is our hope at least to raise questions in each area which have already, or are fast becoming, focal points for investigation, research and the dissemination of information.

Language Planning

One area which involves applied linguists on a world-wide basis is the issue of deciding on the language of instruction in school systems. Such a choice is more than an educational matter because success or failure in schooling can have a direct impact on a person's future economic, social and political status. In multilingual countries around the world the choice of the language of instruction involves a variety of linguistic and non-linguistic issues.

From linguistics we can gain information on the number of languages in a given country, how they are structurally related, and the sociolinguistic functions of each language. Specific projects with a linguistic base provide demographic information, including the number of bilinguals, and data on the types of lexical items currently in each language (e.g. technological, scientific words), whether or not the language has been codified in writing and the degree of international usage for each language. In addition, information and expertise on how people learn second languages, what methods can aid in second language acquisition and the best time to introduce additional languages into the curriculum can be provided by those with linguistic training. All this information is vital for decisions on which language or languages are to be employed in the school system.

However, linguistic data are not the only factors in determining language choice in the educational system. Such decisions may also be based on political ideology (e.g. a colonial legacy, a desire to forge a new identitiy, etc.), rivalries among various ethnic economic political groups who will gain or lose power when languages are maintained or switched, and philosophies on the desirability of pluralism in a given society. Economics also enters into the picture for successful instruction requires trained teachers, curriculum specialists, and materials, the cost for which will also influence decision makers.

As a result of all of these factors, some basic questions often appear. Will the selection of one indigenous language heighten national unity or cause feelings of resentment by speakers of other indigenous languages? What is gained or lost through the selection or retention of a colonial language -- a new political identity, economic modernity, access to the wider world ? What are the costs, both economic and non-economic, in preparing new textbooks in an indigenous language and in finding and training teachers to teach in that language? Should additional languages be introduced later in the curriculum and, if so, at what point and in which language? How are speakers of other languages to be treated?

These questions, and a host of others, vary from country to country and there are no universal answers to the issues they raise. Solutions to such questions should involve linguists and depend on information gained from linguistics. However, it is equally important to remember that the decisions which are made are often formed on the basis of non-linguistic concerns. Nonetheless, the applied linguist, working jointly with specialists from other disciplines, can aid in

474

the decision-making process, helping to determine whether or not existing policies on language instruction should be maintained or changed.

Refugee and Immigrant Issues

There is hardly a continent on earth which has not been beset by problems resulting from the increasing flow of refugees and immigrants. To be sure, the impetus for the movements of peoples under such circumstances has rarely been based on language factors. The result of this trend, however, has had clear implications for language considerations. The United States has for some time been faced with the problem of how schools should cope with significant numbers of children whose native language is not English. In some instances, federal guidelines have been developed to assist with the development of plans for expanding the English proficiency of such students. At various times these plans have incorporated bilingual components designed to foster better education by providing limited instruction in the first language of the students. Ultimately, given the nature of the decentralized educational system of the United States, it has been school districts within the separate states which have been left with the responsibility for implementing any multilingual programs. The ripple effect from such programs has meant that a continuous cycle of activities require the contribution of individuals with training as applied linguists.

One of the first problems has been the assessment of the actual proficiency of refugee and immigrant students in English and in their first languages. With such a wide variety of Asian, European and American languages represented, a great deal of expertise is required on the part of those coordinating these activities. There is a crying need for persons with linguistic training to work with the preparation of textbooks and other materials, in training teachers, in actual teaching (both English and content areas), and in overall coordination of teaching support and evaluation activities.

There is a close link between the activities associated with the teaching of English as a second language and similar activities conducted within bilingual programs. Two professional organizations now over twenty years old serve as focal points for the teaching, research and general professional interests and needs of the two fields. Teachers of English to Speakers of Other Languages (TESOL) and the National Association of Bilingual Education (NABE) include within their membership many persons who deal with these issues on a daily basis. Applied linguistics has been prominent among the areas of specialization for these individuals. More than half the states in the U.S. now include ESL and/or bilingual education as part of their certification or endorsement areas for teachers. In these cases linguistics and applied linguistics are regularly included in the areas of training for acquiring or maintaining such certification.

Not all of the refugees and immigrants are children, of course. For adults the practical problems to be dealt with, and which usually require consideration of language matters, include employment and daily survival. Organizations such as the Center for Applied

Linguistics in Washington, D.C. have long coordinated projects dealing with the training of refugees in job skills and in becoming prepared to deal with the demands of life in the United States, all with a clear focus on language as a clear element in meeting such an objective. Many community colleges and adult education centers continue to host large numbers of persons requiring training and orientation to English and its use in this society. From pure language issues to those dealing with broader problems arising from the interaction of peoples from a variety of races, languages, and cultures, linguistics has played a key role in tackling these problems.

Dialect Issues

Another area where applied linguists have assumed an active role centers on the pedagogical implications arising from dialect diversity in the United States. Linguists have always been interested in the study of dialectal differences within the English language. With the rise of the Civil Rights movement in the 1960's and the raising of public consciousness toward the political, social, economic and educational inequalities among certain minoritiy groups, especially Black Americans, dialect studies became part of a wider trend of research directed at minorities in the U.S. Such investigations sought to describe the linguistic characteristics of various dialects and to create an understanding that each dialect is logical and systematic, with no dialect being superior to another. Other studies investigated attitudes held toward dialect speakers, incorporating in a unique fashion information from linguistics and other social sciences.

A natural byproduct of these studies was a series of questions related to the pedagogical effect of dialects on learners' progress in the school system, on teachers' attitudes toward dialect users and on whether or not changes should be implemented in instructional practices and teaching materials to deal with a multidialectal school population. Still unresolved today, some of the questions are: should oral dialect use (i.e., non-standard varieties of English) be encouraged, tolerated or eradicated in students? Do speakers of non-standard dialects have special problems when learning to read and write in standard English? Should materials for use in schools be written in non-standard dialects? How can teachers and administrators be sensitized and prepared to deal with the educational needs of speakers of non-standard dialects?

Heated debate has emerged on all of these questions and various attempts have been made to help non-standard speakers in the school systems but, as already mentioned, no universal philosophy or solution has emerged. As with other issues that have been discussed, the issue is not purely a linguistic matter nor is it solely confined to the school situation. Educational solutions to language issues will ultimately be part of wider social, economic and public policy. What has been a positive development is that the evolvement of social issues and educational solutions has been tempered by information and guidance from linguistics.

Varieties of English

Hardly a day goes by without seeing in newspapers or magazines some discussion of the increasing internationalization of science, technology, business, and industry. Usually, this is accompanied by some indictment of the educational system of the United States which does not appear to be preparing scientists, technicians, business representatives, and industrialists who can work competitively in the increasingly international arena because of their lack of linguistic and intercultural training. Over and above such issues as they impact on Americans, there is a corollary set of issues which stems from the evolvement of a number of linguistic, cultural, social, economic and religious factors in many countries world-wide. One aspect of this evolvement is the changing nature of English. Because of the extensive need for English in the fields mentioned, it is growing in terms of the number of its speakers around the world. Estimates place the number of persons who speak English as a second language at 700 million, even more than the 400 million native speakers. The degree and level of usage among these second language speakers varies extensively, however, depending and changing often due to developments on the local (national) scene. In many countries where English had been a language, if not the language, of instruction in the schools, it has now been replaced by other national or indigenous languages. Over time this has meant that younger persons are leaving school with less developed skills in English than was the case before. Moreover, despite internationalization, thousands of persons within school systems and beyond are becoming able to use English in only very restricted settings.

So extensive has been this pattern of development that now formalized varieties of English have become stabilized and in fact recognized as valid for many purposes. For the student in Malaysia, Sri-Lanka, or Indonesia who needs to use English on a regular basis but who rarely interacts with anyone but other nationals from his own country, there is little incentive or argument to aim for British or American standards in all phases and features of the language. As this situation has become so widespread, there is need to apply the information and expertise of applied linguists to determining as accurately as possible the changing nature of English and its role vis-a-vis other languages in numerous countries. Some of this work demands data collection but often situations require analysis and informed guidance s input to teams of specialists from several disciplines.

An outgrowth of these developments has been the eventual impact on higher education in the United States. For some years there have been a large number of foreign students enrolled in American colleges and universities. The majority of these students do not speak English as their first language. In addition to those who come prepared with sufficient English skills to begin their studies, there are many who must devote some time to English training in order to reach that level. Thus, we have the hundreds of English language institutes and programs with teaching, administrative, research and support staffs developed precisely for this purpose. In many instances, especially in the many situations where these programs are linked with or even housed in linguistics departments, there is a clear role and need for applied linguistics. The demands of the current situation have become only more complex given the world-wide developments described above. Most non-native speakers arriving for English training in the U.S. these days have had some formal and informal exposure to English in their home countries. Because of the complicated patterns of language use in so many countries, the persons in question often exhibit a disparate combination of skills in English. In some cases reading abilities are quite high but oral skills are not. In other cases whatever English skills such persons possess are restricted to very specialized contexts. Such situations demand increasingly sophisticated approaches to language assessment, needs analysis, and actual teaching with all that that entails.

Perhaps the most recently developing situation within higher education is one which has gained the attention of faculty members, students, administrators, parents and legislators throughout the United States. This is the matter of the linguistic abilities of foreign teaching assistants. Especially in certain fields such as Mathematics, Engineering, Physics, and Chemistry, the number of graduate students who are native speakers of English has dwindled significantly. At the same time, as the number of undergraduate students and classes has grown, more and more departments, especially at large state universities have turned to their foreign graduate students to assist by serving as teaching assistants. What seemed such a logical solution to a developing situation has led to some problems of tremendous proportions, at least judging from the amount of publicity regularly appearing. The crux of the issue is the inability of such assistants to use English to the degree required for their teaching assignments.

An undeniable aspect of this problem is the lack of exposure of most American undergraduates to speakers of other languages. But given the evolving situation of English throughout the world, much can also be attributed to the convergence of speakers of a variety of Englishes. What is called for are careful assessment procedures, informed analyses, and accurate combinations of linguistic, demographic, and sociological data, all converging to address a clear problem.

Summary

Thus, in very passing fashion we have looked at four examples of how and why applied linguistics plays a role in the field of education. In these and other related examples from other fields, applied linguistics continues to be an interdisciplinary endeavor, combining the information and expertise gained from linguistics and from a variety of other fields as appropriate. Preparation leading to work in applied linguistics usually requires advanced training at the graduate level. However, undergraduate courses and programs of study focusing on or including linguistics serves as a useful beginning to such work as well.

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APPENDIX 4-B

Clinical Linguistics

by

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The views expressed are those of the authors and do not necessarily reflect the position of the LSA or the National Endowment for the Humanities.

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The role of linguistics in the undergraduate curriculum

Nearly all aspects of diagnoses and intervention of language and speech disorders require the ability to conduct a linguistic analysis of language samples to determine the nature of the problem and the amount of progress being made. Common problems can be assessed through the use of already available standardized tests that provide specific details of how to administer the test, how to analyze the data, and how to interpret the results. Unfortunately, in most clinical settings, other problems go unrecognized and untreated. Linguistics provides the key to filling this gap. With further training in linguistics, clinicians could apply standard field methods to collecting language samples; they could analyze these samples using the methodology of descriptive linguistics for phonetics, phonology, syntax, and semantics; they could profit from journal articles that describe language development and disorders using such theories as government and binding or autosegmental phonology. Their diagnostic abilities would not be limited to standardized tests and their better understanding of the ways in which languages are similar and different might assist in the development of innovative intervention techniques. They would in essence become clinical linguists, rather than simply clinicians. In this regard, it should be pointed out that all of the agencies that specify program requirements (ASHA, state education agencies) dictate only the minimum, which is insufficient to achieve this broader goal.

What is clinical linguistics?

Clinical linguistics pays attention to a population with language difficulties, such as aphasic, language disordered, autistic, intellectually handicapped, deaf, emotionally disturbed (schizophrenic, manic depressive, other types of psychotic), and physically handicapped individuals who are speech impaired (e.g., cerebral palsied). The split is not one of the setting (clinic vs. classroom) but rather of normal language vs. language that requires special attention. This definition would potentially include applied psycholinguistics, speech-language pathology, audiology, deaf education, neurolinguistics (including but not limited to aphasiology), and certain areas of special education. But it would exclude so-called applied linguistics (English as a second language, second language acquisition, bilingual acquisition) on the grounds that, although the issues addressed have practical implications for educational concerns, the individuals whose language competence or acquisition is being investigated are normal individuals, rather than a clinical population. On these same grounds, psycholinguistics and language acquisition with normal children would be considered a separate but prerequisite area for those interested in clinical linguistics.

The clinically-trained person with special training in linguistics

Among the LSA membership, we have a number of individuals whose primary training is in a clinical field and who have acquired linguistic training for clinically-related purposes. These include people who are certified (Certification of Clinical Competence, CCC) in speech-language pathology or audiology by the American Speech-Language-Hearing Association (ASHA), or who hold the Certificate in Education of the Deaf (CED) from the Council on Education of the Deaf. Such certification is usually acquired following the Master's Degree by one to five years of professionally supervised clinic or classroom work.

It should be pointed out that an undergraduate degree in linguistics is an appropriate, and in many cases highly valued, background for entry into Master's degree programs in speech-language pathology, audiology, education of the deaf, and certain areas of special education.

General linguistics for clinical undergraduates

Several areas of linguistics must be included in the undergraduate education of anyone contemplating a linguistically-relevant clinical field: a) general introduction to language and descriptive linguistics, b) phonetics, c) field methods and methods of problem solving with emphasis on phonological and morphological problems, and d) current theories of syntax and phonology.

a) Introduction to language and descriptive linguistics

It cannot be emphasized enough that the average undergraduate has little or no conception of what language is or how languages differ; even those who are destined to major in clinical areas that deal primarily or exclusively with language begin with nearly all of the popular misconceptions and prescriptive biases intact. Efforts in introductory courses to separate prescriptive perspectives from descriptive approaches are only marginally successful. It is difficult to erase prescriptive attitudes toward other dialects. The general feeling that differences from the hypothetical standard are wrong permeate the undergraduate population as much as the general population. This attitude prevents a fuller appreciation of the attempts made by linguists to demonstrate the interesting variation in language, whether with dialects of English or with cross-linguistic phonology, morphology, and syntax problems. As a result, the average beginning clinician is generally fuzzy on "different" versus "deviant". A telling example is the recurring question of the role, if any, of the speech-language pathologist in the area of dialect/accent "correction" (referring to normal populations). One state school system assigned a child with a British accent to speech therapy because they felt that he would not be able to learn to read if he could not make the same letter-sound associations as the other children in the class. The consciousness-raising aspects of introduction to language courses are an important precursor to content more directly related to linguistic terminology and methodology.

Many states require students to take a course with 'linguistics' in the title for any certification in education. What such courses should include varies from state to state, and the distinction between introduction to language and introduction to linguistics is not always made clear. Ideally, students should acquire enough familiarity with linguistic terminology and concepts to be able to read literature relevant to the field of their choice. In reality, a single course is obviously insufficient to accomplish this task. Students who are interested in reading and writing difficulties (e.g., in learning disabled or deaf children) or language pathology should be encouraged to take a separate course in syntax, while those interested in aspects of speech pathology would need more phonetics and phonology. Such courses should be primarily aimed at analysis of language data and should include a wide variety of languages. Some introduction to cross-linguistic typology would also be helpful at this level.

b) Phonetics

Speech-language pathologists and audiologists are already required to take phonetics in addition to a general course in linguistics. Unfortunately, students interested in special education, deaf education, or sign language research are not required to take phonetics and frequently think that it is irrelevant. Given the many similarities between speech and signing, it is a mistake to think that sign language analysis can be done in the absence of phonetic training; for example, much current controversy about the nature of stress in ASL stems from some researchers' lack of foundations in how stress is phonetically manifested in speech.

Future teachers of deaf children will be expected to engage in an activity known as "teaching speech to the deaf". Yet the average teacher of the deaf knows nothing about phonetics, normal speech development, or phonology. Most teachers of the deaf are taught a methodology (usually the method from D. Ling, Speech and the Hearing-Impaired Child) which they attempt to implement during the school day. At the same time, the average speech-language pathologist has little or no understanding of the special problems of a totally deaf child when it comes to speech development. Standard clinical techniques ("listen and repeat after me") are obviously inappropriate with deaf children. The development and utilization of new techniques will require a more sophisticated understanding of phonetics and speech science.

Sign language researchers and future teachers of the deaf need greater expertise in transcription, understanding the vagaries of segmentation, segmental vs. suprasegmental characteristics of speech, speech physiology, the notion of "sound systems", and the varieties of sound systems that exist across languages. Further exposure to speech science would also be helpful, especially given the recent development of computer-based intervention technology.

c) Field methods and problem solving

Speech-language pathologists, as part of their training, receive instruction in methods of assessing abnormal linguistic development. In the areas of vocabulary and syntax, there are several standardized tests of comprehension and production which are scored according to a specific procedure, from which one can obtain an average developmental level for the child and, in some cases, a rough indication of what types of problems the child might be having. There is every evidence that the clinical field would benefit greatly from test developers whose understanding of phonology, morphology, and syntax was more comprehensive, although it is not clear that requiring courses in these areas simply at the undergraduate level would be sufficient.

On the other hand, in the area of phonology, there seems to be a case for including additional coursework on phonological problem solving and exposure to the phonologies of other languages. There are several assessment procedures used in speech-language pathology that can be followed in order to identify ways in which a child's phonological pattern might differ from the adult model. These "phonological process" analyses provide an outline of the areas in which the child might need intervention. Only those differences that are addressed by the test can be identified by the clinician who lacks phonological training. Yet it is clear that children do not limit their phonological "deviancies" to just the frequently occurring ones; the more phonologically-impaired the child is, the more likely that there are also problems in areas not assessed by currently available tests. A clinician with more extensive phonological training could do the field work and analysis necessary to broadly describe the child's entire system. Experience with collecting language samples and analyzing the data would be extremely useful to practicing clinicians. It should be noted that this argument applies also to those clinicians working with adults who have language problems (e.g., aphasia). There is considerably more to be known about disrupted speech and language than can be determined by existing standardized tests.

d) Current theories of syntax and phonology

Although undergraduate students with clinical majors probably do not need to become fluent in the procedures of analysis and argumentation associated with current theoretical approaches to language, there is a strong need for them to be familiar with the differences in perspective, the basic terminology, and the basic notations associated with current theories. This is the result of an increasing number of developmental and clinical research studies that use e.g., government and binding or autosegmental phonology. The ability to read these articles at the graduate level will depend on the student's prior exposure to these concepts. At the present time, there is much duplication; while courses are available that provide overviews to current theories, faculty in departments of speech and language pathology may include an introduction to a particular phonological theory as part of a seminar on recent research on phonological disorders. While it is not possible to provide all the background that one might need at the undergraduate level, the more familiarity the student can attain at the undergraduate level, the more that can be accomplished at the graduate level.

Clinical linguistics for the linguistics undergraduate

The undergraduate linguistics major can rarely predict what type of activity he or she will be engaged in five years down the line. As mentioned earlier, a degree is linguistics at the undergraduate level is appropriate for entry into most clinical linguistics programs.

There are several courses that are usually provided by speech and hearing departments that might be appropriate to include as electives in the undergraduate linguistics curriculum: introduction to communication disorders, aphasia (and neurolinguistics), speech physiology, brain and language, as well as some upper level courses such as phonological disorders, language disorders, assessment procedures, and audiology. Some of these courses provide examples of direct applications of basic linguistics to clinical situations; others provide exposure to areas in which linguistics can eventually be applied. For example, stuttering is frequently thought to be a disruption of the physiological speech production mechanism; at the same time, there is evidence that stuttering occurs much more frequently at the beginning of major syntactic phrases, suggesting a higher level linguistic involvement than is usually recognized. The use of data from aphasics as evidence on brain lateralization is widespread, but is becoming increasingly controversial as linguists delve more deeply into the case studies. Recent investigations into the nature of tone perception, production, disruption, and development in speakers of tone languages who are aphasics, hearing-impaired, laryngectomies, or normal children are evidence of potential applications of basic linguistics to clinical areas (cf. research on Thai by J. Gandour).

Special thoughts on linguistics and ASL

The study of American Sign Language (and, of course, other sign languages) is in many respects not really "clinical linguistics". It is, after all, the study of a language, and the native users are as much a cultural minority as a clinical population. Phonological analysis, segmentation, syllable structure, stress assignment, basic vs. derived forms -- these must all be done on ASL using the same methods that are used for spoken languages. The names of the units may be different, and the phonetic realization may be different, but the linguistic analysis and argumentation that are used on ASL now are the same as those used on spoken languages (and the questions just as difficult to answer). In this regard, students interested in pursuing ASL linguistics should be expected to take the same linguistics curriculum as others who are interested in spoken languages. Unless the faculty members are sign language researchers themselves, the students should be expected to do enough of their research and argumentation papers on spoken languages so that the faculty can assess the students' abilities in data organization, logic and argumentation, writing and presentation. Too frequently, students write papers on ASL that are interesting on the surface, but which the faculty members are unable to adequately evaluate. As time goes on, the notation and description of ASL will become more standardized and widespread, and there will be less need for this concern.

Another issue that comes up concerning ASL is the question of counting it for the language requirement. If the student is a native user (for example, a deaf student), then presumably ASL is the first language and English is the second, and should be treated accordingly (that is, parallel to any foreign student for whom English is the second language). If the student is a native bilingual (for example, a hearing person with ASL-using deaf parents), then whatever policy would be used for any other bilingual (say American Hispanic Spanish-English) would be appropriate. If the student is not a native user of ASL and wishes to use it for the second language requirement, care must be taken in the assessment of competency. Not all signers are fluent ASL users; ASL has a grammar that is distinct from English (ASL is agglutinating, inflected for aspect, and has reasonably free word order), but signers can take the ASL signs and put them in English word order ("signed English"). Signed English is totally unacceptable for the second language requirement (being merely coded English). If the evidence of competency is based on sign language courses taught within the university, linguistics faculty should determine that these are in fact American Sign Language courses (a critical feature is the inclusion of ASL syntax). If a proficiency examination is to be used, some type of committee should be formed to do the evaluation. ASL course instructors, certified sign language interpreters (with Comprehensive Skills Certification "CSC"), and members of the local deaf community can easily determine whether the student has the level of competency required by the university. It is also important to keep in mind that the absence of a written literature in any culture has always been compensated by an oral tradition, in the sense that the accumulated cultural heritage is transmitted from generation to generation by direct contact (rather than on paper). This is also true for the folklore, plays, histories, jokes, sign play, and even songs that are part of the deaf culture. Since the invention of videotape, a library of deaf literature of different genres has become available. To read and appreciate this literature, one must be fluent in the language. It is common for courses in ASL to include this type of material as part of the curriculum; courses without such material should be scrutinized carefully before being accepted as counting towards the language requirement.

Conclusion

There are many ways in which the study of linguistics can contribute to clinical training. The expansion of knowledge of how languages can differ can provide important perspective on language disruption or disorder. More extensive familiarity with field methods of data collection and analysis can broaden the clinician's ability to determine the nature of linguistic impairment. Greater understanding of the fundamentals of language structure, including phonetics, phonology, morphology, and syntax, can provide students with a deeper understanding of the available information on language and speech pathologies and a foundation for more effective intervention.

APPENDIX 4-C

Community Outreach

by

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The views expressed are those of the authors and do not necessarily reflect the position of the LSA or the National Endowment for the Humanities.

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PREFACE

The Linguistics in the Undergraduate Curriculum (LUC) project is an effort by the Linguistic Society of America (LSA) to study the state of undergraduate instruction in linguistics in the United States and Canada and to suggest directions for its future development. It was supported by a grant from the National Endowment for the Humanities during the period 1 January 1985-31 December 1987. The project was carried out under the direction of D. Terence Langendoen, Principal Investigator, and Secretary-Treasurer of the LSA. Mary Niebuhr, Executive Assistant at the LSA office in Washington, DC, was responsible for the day-to-day administration of the project with the assistance of Nicole VandenHeuvel and Dana McDaniel.

Project oversight was provided by a Steering Committee that was appointed by the LSA Executive Committee in 1985. Its members were: Judith Aissen (University of California, Santa Cruz), Paul Angelis (Southern Illinois University), Victoria Fromkin (University of California, Los Angeles), Frank Heny, Robert Jeffers (Rutgers University), D. Terence Langendoen (Graduate Center of the City University of New York), Manjari Ohala (San Jose State University), Ellen Prince (University of Pennsylvania), and Arnold Zwicky (The Ohio State University and Stanford University). The Steering Committee, in turn, received help from a Consultant Panel, whose members were: Ed Battistella (University of Alabama, Birmingham), Byron Bender (University of Hawaii, Manoa), Garland Bills (University of New Mexico), Daniel Brink (Arizona State University), Ronald Butters (Duke University), Charles Cairns (Queens College of CUNY), Jean Casagrande (University of Florida), Nancy Dorian (Bryn Mawr College), Sheila Embleton (York University), Francine Frank (State University of New York, Albany), Robert Freidin (Princeton University), Jean Berko-Gleason (Boston University), Wayne Harbert (Cornell University), Alice Harris (Vanderbilt University), Jeffrey Heath, Michael Henderson (University of Kansas), Larry Hutchinson (University of Minnesota, Minneapolis), Ray Jackendoff (Brandeis University), Robert Johnson (Gallaudet College), Braj Kachru (University of Illinois, Urbana), Charles Kreidler (Georgetown University), William Ladusaw (University of California, Santa Cruz), Ilse Lehiste (The Ohio State University), David Lightfoot (University of Maryland), Donna Jo Napoli (Swarthmore College), Ronald Macaulay (Pitzer College), Geoffrey Pullum (University of California, Santa Cruz), Victor Raskin (Purdue University), Sanford Schane (University of California, San Diego), Carlota Smith (University of Texas, Austin), Roger Shuy (Georgetown University), and Jessica Wirth (University of Wisconsin, Milwaukee).

Departments of Linguistics in the United States have an excellent opportunity to become involved in a variety of community affairs in ways that can be beneficial to both the community, the institutions, and the field of Linguistics. In many communities, language related questions are of paramount concern, especially in urban, polyglot settings. Of course, the issues around which departments can organize and the particular method of intervention are sensitive to a number of local factors. The potential for benefit to both the department and the community can be great—new opportunities for research can be made available to the department, the images of the field of linguistics and of the host institution can be made more realistic in the community, interested students can be attracted to the field, and more students can be motivated to become active in social issues. In the remaining few paragraphs, I describe the community oriented activities of the Queens College Department of Linguistics during the period starting in 1982 through the present. These activities have chiefly involved a project designed to train TESOL teachers and teachers of nonliterate adults; accordingly, the details are particular to institutions where such programs are housed largely in Linguistics Departments. Other institutions, especially those with large undergraduate programs, may find involving students in sociolinguistics projects a more congenial type of project. Nevertheless, some lessons can be drawn from our activities which, we hope, others can benefit from. These are drawn together in the final few paragraphs.

Background. Since 1968 the Queens College Linguistics Department has been developing an undergraduate program in TESOL, aimed primarily at preservice training of teachers for the public schools. In recent years we have noticed three major trends to which we have been responding: increasing numbers of our students are interested in teaching adults; more students are representative of the highly diverse linguistic, national and cultural environment of the College; and a growing proportion of the adults attending ESL classes in New York City have primitive or nonexistent literacy skills in their native languages. In response to these trends, we have undertaken some major changes which have involved community outreach in several areas, as described below.

Preliminary activities. Since the summer of 1982, students and faculty have become involved in a broad range of educational and research projects concentrating on the needs of adults who have severe difficulties with reading and writing, of speakers of languages other than English, and, especially, of those who are in both categories. The first phase of these activities was initiated entirely by undergraduate students, who organized free ESL classes for Hispanic adults in Queens. This had a number of beneficial effects: the College's faculty and students became aware of the need for special approaches to the nonliterate/ESL student, initial contacts were forged with community groups, the existence of a strong interest among undergraduates in community education became apparent, the Department won the respect and cooperation of important student groups, and the College administration offered material support. Encouraged by these results, we began a systematic survey of the community needs, interest among community leaders, and our internal resources; these led to a successful proposal to FIPSE (Fund for the Improvement of Postsecondary Education, a unit of the U.S. Department of Education) for funds to carry these plans further.

The period of the FIPSE grant. For the three year period from August 1983 through July 1986, we were fortunate to receive crucial and substantial support from FIPSE, as well as numerous smaller grants from other sources. The planned a new MA degree in Applied Linguistics, workshops and conferences for practicing teachers, a major international conference sponsored by the LSA, and research into important questions in adult literacy and ESL. For a brief period, the Department also had a State sponsored contract to operate professionally staffed classes in literacy and ESL for adults in the neighborhood of the College. These projects had the goals of promoting the development and professionalization of these fields of teaching, of drawing special attention to the needs of those adults who do not speak English and are also unable to read and write in their own language, and of preparing preservice teachers for adults. During the period of the FIPSE grant, the Department was guided in these projects by an Advisory Committee consisting of community leaders and leading practitioners in the field of adult literacy and ESL in New York.

Community needs addressed. Special attention was focussed on two groups of adults. The first is those Hispanic adults who do not read and write in Spanish, and the second consists of English speaking adults of normal intellectual ability whose literacy skills place them in the lowest level of reading ability. A third group consisting of monolingual, nonliterate speakers of Haitian Creole was included during the first phase of operation. The next few paragraphs provide a general description of the linguistic situation in Queens and the reasons for choosing these target populations.

According to the 1980 census, almost thirty percent of the population of Queens County in New York City is foreign born. Allowing for subsequent trends and undercounts, possibly over one third of the County's population speak a language other than English at home. The linguistic diversity is enormous. According to a series of articles in the New York Times a few years ago, there are almost 90 countries represented in Queens, with Spanish speakers comprising about half the nonEnglish speaking population. Queens is by no means unique in the City, State or nation as a polyglot area. Recent articles in the major newsweeklies describe similar situations in Los Angeles, Chicago, Houston and other cities.

The linguistic needs of nonEnglish speaking youngsters are served by ESL programs in the public schools. There are ESL programs available for adults offered by a variety of organizations, such as the Board of Education, CUNY, churches, libraries, unions, community based organizations and for-profit schools. Although many are of high quality, all are overwhelmed by demand and maintain long waiting lists. The general lack of resources for teaching adult ESL is particularly acute for nonEnglish speaking adults who lack basic literacy skills in their own languages. Almost all existing ESL programs assume native language literacy on the part of students, and all existing literacy programs assume that the students speak English. The nonliterate ESL student has almost no place to turn for an effective and professional basic education.

The gap in services described above results in part from the need for considerable sophistication required for building programs to meet the needs of the nonliterate ESL student. Such programs must be staffed by well-trained, bilingual teachers who are particularly knowledgeable about complex linguistic, attitudinal and cultural factors involved in a program designed to educate this category of adult student. Accordingly, it seemed appropriate for a Linguistics Department to undertake a comprehensive program, in conjunction with community leaders and professional educators, to help meet the needs of nonliterate, nonEnglish speaking adults.

Hispanics comprise one focus population for two reasons: One is that there is a substantial need in this population, because many Hispanics in

Queens come from areas with very poor educational facilities. The second reason is the there are large numbers of Hispanic students at the College who have expressed an interest in working with the Department on this project; several of these students have become majors in Linguistics.

The Department also responded to the needs of English speaking adults who lack basic literacy skills. Most existing literacy programs assume a third-grade or above reading level. Accordingly, adults who have not mastered the basic mechanics of reading and writing find a general lack of services available to them. Many of these are adults who have immigrated from English speaking countries in the Caribbean or Guyana, where they received little schooling. Others are victims of educational failure in the United States. Like the gap in services for the nonliterate ESL student, the lack of resources for the lowest level reader is also accounted for in part by the small number of professionals with an understanding of the linguistic and cognitive tasks involved in the adult's transition from nearly total nonliteracy to fluent reading and writing.

The teacher training program. The teacher training program is an important component of the Linguistic Department's approach to the social needs described above. The Department recruits Hispanic and other students into its undergraduate and graduate programs, and provides them with an excellent general education as well as knowledge specific for helping the ESL/literacy student. All students in the training programs are completely fluent in English and are trained as ESL teachers. The Hispanics receive additional training to provide literacy instruction in Spanish. All students receive training in English literacy instruction with emphasis on the needs of the low-level reader.

The community literacy/ESL program. The community literacy/ESL classes had three main goals: to provide high quality, professional educational services to adults in New York; to become a model program with a national impact; and to provide data and sites for research. Each of these goals is commented on below. This program served about 150 students from different social, cultural and linguistic backgrounds, in a total of eight classes. Six of these classes were designed for Spanish speaking, nonliterate adults, and two for nonliterate Anglophone adults.

The original intention for the community program was for it to become a model program by developing, refining and disseminating the curricula for these classes, emphasizing the cultural and linguistic aspects of each group. Most of the nation's major cities have populations in need of programs of this kind, and it is hoped that the results of these efforts will facilitate the development of other programs to meet their needs. The community program also served as a model by providing training sites for students in the Department; students are able to observe classes, work as tutors, and, when they are advanced in their training to the point of full professional competence, may serve as staff.

The community program provided a convenient means for meeting our research goals because classroom based research ideally should be done with complete control over the instructional program. After one year of operation, however, we came to the conclusion that the administrative burdens of operating an actual literacy program were too great for an academic department, and we transferred it to units of the City University which are dedicated to serving this kind of clientele. We subsequently established a working arrangement with the New York City Board of Education which allowed us to carry our research and curriculum development projects forward.

Institutional support. A key factor during the progress of the community outreach activities described above has been the active interest of the College administration. The administration of Queens College had long sought ways to foster mutually beneficial relations with a variety of community groups, and the Department's activities furthered this interest. There is no doubt that the high degree of institutional support we received was important in improving our chances of acquiring funding and in creating a hospitable environment for the community groups we worked with.

Conclusions. Many factors, involving both the internal organization and external setting of the institution, make our experience unique. There are, however, some features common to our activities and those of any academic department which is contemplating any kind of large-scale program of community involvement. In particular, we commend the following five conclusions for consideration.

1) Although clarity about goals is necessary, it is also important to be flexible. The community plans we undertook had the effect of suddenly plunging us into intense activities within a milieu where we had had little prior experience. We felt a chronic tendency to loose sight of our original goals and to become preoccupied with immediate problems. We managed to survive this period, largely because the advisory committee helped us keep our eye on the goal. However, it also became apparent that

many of our original goals were either unattainable, or had to be modified as a result of our experiences. We found that it was a major challenge to maintain, on the one hand, a sense of purpose, yet on the other to be flexible about changing our purpose.

2) Involve community leaders and students in all phases of planning and execution. It is very important to involve community leaders in all stages of planning and execution of the project. We learned that there exists an expectation in the community that local Colleges and Universities, especially public ones, should play a leadership role in community affairs; accordingly, community involvement is usually very easy to obtain. We involved community leaders in our advisory committee, which had numerous beneficial results. The description above also reveals the crucial and self-starting role played by students. Since they provided the momentum from the beginning, it is clear that they had to be centrally involved in planning every aspect the project.

3) Be sure of internal institutional support. Assuming that the ultimate goal is a program which is to be institutionalized, it is clearly necessary that any obstacles which might stand in the way are clearly anticipated. Furthermore, it is important that the community outreach projects which are anticipated are consonant with the desires of the institutional administration.

4) Carefully identify resources and be ruthlessly self-critical about the danger of over-extension. Since involvement in community outreach projects usually entails a wide range of very intense activities, this is an important caveat.

5) Avoid becoming identified with partisan issues which might divide the community you are trying to work with. Both student groups and external communities are inevitably debating important political questions. For example, we found that there were serious conflicts between the Board of Education and other providers of adult basic education over funding issues, which quickly became transformed into questions of approach. It was our obligation to work with all providers; we wanted to learn as much as we could about practical issues in the classroom, to work out sites for our students, and to make contacts to help the employment prospects of our graduates. Had we become identified as members of any 'camp', we would quickly have lost some of the good will we had worked so hard to achieve.

The description of the community outreach activities of the Queens College Department of Linguistics given above is offered in hopes that linguists in other institutions who are considering community projects may learn something from our experiences.

APPENDIX 4-D

Linguistics and the Study of Literature

by

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The views expressed are those of the authors and do not necessarily reflect the position of the LSA or the National Endowment for the Humanities.

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PREFACE

The Linguistics in the Undergraduate Curriculum (LUC) project is an effort by the Linguistic Society of America (LSA) to study the state of undergraduate instruction in linguistics in the United States and Canada and to suggest directions for its future development. It was supported by a grant from the National Endowment for the Humanities during the period 1 January 1985-31 December 1987. The project was carried out under the direction of D. Terence Langendoen, Principal Investigator, and Secretary-Treasurer of the LSA. Mary Niebuhr, Executive Assistant at the LSA office in Washington, DC, was responsible for the day-to-day administration of the project with the assistance of Nicole VandenHeuvel and Dana McDaniel.

Project oversight was provided by a Steering Committee that was appointed by the LSA Executive Committee in 1985. Its members were: Judith Aissen (University of California, Santa Cruz), Paul Angelis (Southern Illinois University), Victoria Fromkin (University of California, Los Angeles), Frank Heny, Robert Jeffers (Rutgers University), D. Terence Langendoen (Graduate Center of the City University of New York), Manjari Ohala (San Jose State University), Ellen Prince (University of Pennsylvania), and Arnold Zwicky (The Ohio State University and Stanford University). The Steering Committee, in turn, received help from a Consultant Panel, whose members were: Ed Battistella (University of Alabama, Birmingham), Byron Bender (University of Hawaii, Manoa), Garland Bills (University of New Mexico), Daniel Brink (Arizona State University), Ronald Butters (Duke University), Charles Cairns (Queens College of CUNY), Jean Casagrande (University of Florida), Nancy Dorian (Bryn Mawr College), Sheila Embleton (York University), Francine Frank (State University of New York, Albany), Robert Freidin (Princeton University), Jean Berko-Gleason (Boston University), Wayne Harbert (Cornell University), Alice Harris (Vanderbilt University), Jeffrey Heath, Michael Henderson (University of Kansas), Larry Hutchinson (University of Minnesota, Minneapolis), Ray Jackendoff (Brandeis University), Robert Johnson (Gallaudet College), Braj Kachru (University of Illinois, Urbana), Charles Kreidler (Georgetown University), William Ladusaw (University of California, Santa Cruz), Ilse Lehiste (The Ohio State University), David Lightfoot (University of Maryland), Donna Jo Napoli (Swarthmore College), Ronald Macaulay (Pitzer College), Geoffrey Pullum (University of California, Santa Cruz), Victor Raskin (Purdue University), Sanford Schane (University of California, San Diego), Carlota Smith (University of Texas, Austin), Roger Shuy (Georgetown University), and Jessica Wirth (University of Wisconsin, Milwaukee).

A story is a way to say something that can't be said any other way, and it takes every word in the story to say what the meaning is.

—Flannery O'Connor (1961:96)

INTRODUCTION: THE RELATION OF LANGUAGE TO LITERATURE

Art, said Paul Klee, is exactitude winged by intuition (Klee 1925:8).[1] He was speaking, of course, from the artist's (the sender's) point of view; yet these two elements--exactitude and intuition--are the things that concern students and critics of art (the receivers) as well. As students and critics of literature, we ask these questions about a poem, novel, play, any literary work: What does it say? How does it say it? How well does it do so? The nature of literary art--exactitude winged by intuition--makes linguistics an indispensable tool in pursuing these questions.

In this essay, speaking simultaneously as a linguist and a writer of fiction and poetry, I will explore the ways in which linguistics contributes to the enterprise of understanding literature.[2] My aim is neither a survey nor a sermon, but rather to illustrate, as well as I can, a linguistic approach to literature. It is an approach representative of many, though by no means all, practitioners of linguistic stylistics. I have tried to make it accessible to two kinds of audiences: non-linguists exploring the usefulness of linguistics to literary study, and linguists interested in applications of their discipline that may be new to them.

First we will look briefly at the history of the relationship between linguistics and literary study; from there we will move to reconsider that relationship, reframing the question of what linguistics can contribute to literary study; then we will explore in detail a model that draws on current approaches to language to give students of literature--particularly in courses offered at the undergraduate level--insight into its linguistic structure.

The Tradition of Linguistics in Literary Study

In a sense, writing an essay that addresses the question of how linguistic analysis contributes to the understanding of literature is an exercise in absurdity. In what other arts do we separate the medium from the work, isolating, in Aristotelian terms, the material cause from the formal and final causes? We do not talk about the visual arts without reference to the properties and possibilities of paint and stone, chisel and charcoal; nor of dance without reference to the properties and possibilities of the human body in space. Yet the connection between medium and work is, if anything, closer for literature than for the other arts (Winner 1982:304). Considering the medium does not mean a return to the New Critical stance towards the work. Far from disregarding the effect of learning, experience, and context (both period and culture), insisting on the inseparability of language and literature necessarily takes these things fully into account. "Language," as Sapir (1921:22) put it, "is on its inner face the mold of thought." As any novelist, poet, or playwright knows only too well, the struggle to find words that fit the vision is also the struggle to free that vision from the wrong words, from unwanted tone, mood, and meaning--all the baggage that comes with a symbolic system used primarily for other purposes.

It is only since the early twentieth century that language and literature have been seen as truly separate. The Greeks and Romans wrote grammars that had as integral parts sections on prosody and other aspects of literary structure--an organization reflecting their assumption that one studied language in order to understand literature. Dionysius Thrax, for example, defined grammar as "the practical knowledge of the general usages of poets and prose writers" (Culler 1982:4). The grammars of the Middle Ages, both those describing Latin and those describing the vernacular languages, followed Greek and Roman models. In the later medieval period and the Renaissance, rhetoric--again imitating classical models--subsumed linguistics, and the study of the medium continued to be part of the study of verbal art. The pedagogical or "school" grammars of the eighteenth and nineteenth centuries, both in England and America, followed suit. Grammars like those of Lowth (a professor of poetry at Oxford) and Priestley (an orientalist) and the immensely popular Lindley Murray (whose English Grammar adapted to the Different Classes of Learners went through at least fifty editions during the first half of the nineteenth century [Gleason 1965:71]) typically contained sections on prosody and discussions of writing and usage drawing on the great writers of the English tradition. With the intense pursuit of the laws of linguistic change, the nineteenth century, as Culler (1982:4) points out, saw the beginning of the separation of linguistics from literary study. Modeling its explorations on the biological sciences and trading in laws, theories, and models (Stewart 1976), linguistics began to view itself as a science; this direction of development was enhanced in the first decades of our own century by the close connection between linguistics and anthropology. Literary criticism, meanwhile, pursued a direction of its own, evolving theories of literature (Russian Formalism and the Prague School, structuralism, deconstruction) designed to stand free of linguistic analysis, though they might on occasion make use of linguistic terms and concepts. The separation of the dancer from the dance was complete.

Whether the dichotomy is desirable or not, it is what we have. It is now possible--in fact, necessary--to ask the question, What can linguistics contribute to the study of literature? Before exploring in detail the various ways in which linguistic analysis illuminates literature, however, we need to define the question carefully. Objections to the use of linguistics in literary study generally respond to a poor interpretation of the question, one that confuses some functions of literary criticism with others or arrogates to linguistics functions it cannot and should not be asked to serve. Defining the question entails redefining the relation between linguistics and literary study.

(Re)defining the Relation of Linguistics to Literary Study

To see the usefulness of linguistics to literary study, we must first look at literary study itself: its goals, values, and functions. The questions pursued by the literary critic--what does the work say, how does it say it, and how well does it do so--correspond to three functions: interpretation, description, and evaluation.[3] The place of linguistics (as I will show in the following section) lies entirely within the activity of description. Linguistics offers tools (vocabulary, concepts, analytical framework and methodology) for determining how a work of literature achieves its effect. Interpretation and evaluation are activities of literary, not linguistic, analysis. They cannot be carried out without a full and accurate description of the work, which rests in part on an analysis of its language; but they have only this oblique relation to linguistics. Linguistic analysis establishes the presence of a feature and may have something to say about the effect of the feature on a reader, but leaves it to the literary critic to interpret the significance of that feature in the work of art. Thus syntactic parallellism, for example, can be correlated with very different effects in the poetry of Donne and of Plath; indeed, it should be, if linguistic analysis is doing its job.[4] Similarly, judgments of the significance of a work--its meaning in a particular culture at a particular time--and of its aesthetic merit are the province of literary criticism proper. Linguistic analysis does not tell what a poem or a novel means (though it can tell the meaning or range of meanings of the sentences that make up the poem or novel), nor does it reveal how good a work it is. It shows how the work is made.

In broad outline, this view of the use of linguistics in understanding literature corresponds to Spitzer's philological circle. The reader or critic begins with an intuition about the work; analyzes the work to explore this intuition, modifying it in the process; and returns, with increased insight, to a contemplation of the work as a whole. This amounts to a humble claim for linguistics: its use in the service of a larger enterprise. As with other areas of applied linguistics--speech therapy, language teaching, language policy--linguistics serves its "host" discipline as a consultant, providing otherwise inaccessible information for it to act on in accordance with its own interests. In this view, linguistic competence--the speaker/hearer's internalized grammar of a language, including (as we will see) its pragmatics--is a subset of literary competence. Literary competence--which we can view as the outer envelope--contains three smaller envelopes of the same kind (each a competence): linguistic competence; pragmatics; and all the other kinds of knowledge and skill that go into understanding literature. (Often the last of these inner envelopes is also referred to as "literary competence."[5]) Linguistic analysis cannot substitute for literary competence and cannot itself fulfill the functions of literary analysis. But the humblest roles are often the indispensable ones; and so it is with the role of linguistics in literary study.

The Uses of Linguistics in the Description of Literature

Having established what linguistics cannot supply--interpretation and evaluation--we can look more closely at what it does provide. Here we need to consider two questions. First, what does the function of description comprise? And second, how does linguistics contribute to it? In describing a literary work, the critic (who wants ultimately to find correlations between its features and its effect on the reader) considers a number of things, among them genre, elements of the genre (character, plot, theme, voice, imagery, metrical form, and so on), conceptual structure, period, culture, and language. For getting at the last of these, the language of the work, linguistics provides the tools: a model of language, including a set of terms and concepts, a theoretical framework, and an analytical method.

Linguistics facilitates the description of a literary work in three ways. First, and most obviously, linguistic knowledge makes accessible literature removed from us in space or time. Without some knowledge of American English dialects, Ambrose Bierce's Gullah stories are difficult to grasp. Without a knowledge of Old English, we cannot even approach a text like Riddle 28 of the Exeter Book:

> Biþ foldan dǣl faegre ġeġierwed
> mid þȳ heardestan ond mid þȳ scearpestan
> ond mid þȳ grymmestan gumena ġestrēona,
> corfen, sworfen, ċyrred, þyrred,
> bunden, wunden, blǣċed, wǣċed,
> fraetwed, geatwed, feorran lǣded
> tō durum dryhta. Drēam bið in innan
> cwicra wihta, clengeð, lengeð,
> þāra þe ǣr lifġende longe hwīle
> wilna brūceð ond nō wið spriċeð,
> ond þonne aefter dēaþe dēman onginneð,
> meldan mislīċe. Miċel is tō hycganne
> wīsfaestum menn, hwaet sēo wiht sȳ.

And a translation that conveys even some of the poetry of this text requires a knowledge of Old English that goes well beyond its grammar--a knowledge sophisticated enough to connect its phonology to its metrics, its morphology to its figures of speech (as with the example of the kenning discussed below), its syntax to its stylistic devices (such as variation and enumeration).[6]

> Earth's one corner holds them fast:
> the hardest, sharpest, grimmest of treasures.
> Curved and carved, turned and burned,
> bound and wound, bleached and stretched,
> freighted, readied, carried from remote lands
> to a lord's door. Inside, a dream
> of living creatures clings and lingers.
> Alive they desire, indulge, and desire,
> endlessly, silently; then after death
> they judge and they speak.
> The wisest will find it too much to guess
> what this creature might be.

Knowledge of contemporary linguistics underlies the description of literature in a second, more oblique way. Contemporary critical theory--structuralist poetics, semiotics, reader-response criticism, deconstructionism--makes frequent use of linguistic terms and concepts. Beyond this, it looks to linguistics for analogues in constructing its theories, borrowing not just terms but whole paradigms. Conceptions of narrative like those of Todorov 1977, Prince 1973, Genette 1981, Brémond 1973, and Greimas 1966 are modeled on linguistic theory, adopting the paradigm of structural or transformational linguistics and translating it into terms applicable to narrative (Stewart 1987). These theories are difficult to grasp or apply without an understanding of the linguistic theories on which they are modeled.

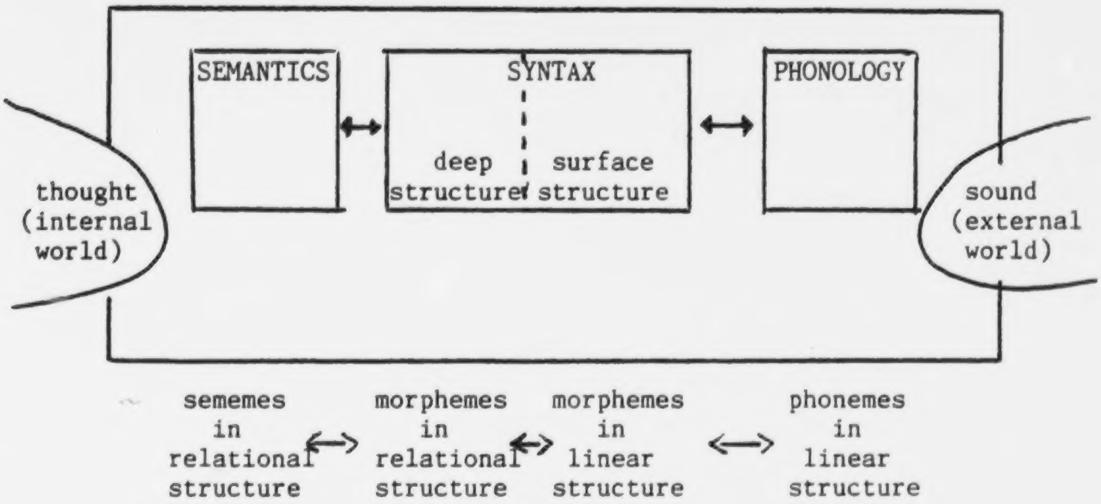
The third way in which a knowledge of linguistics contributes to the description of literature is in providing the tools for analyzing its language and characterizing it *vis-à-vis* nonliterary language and the language of other literary works. It has been argued that one can discuss literary language without the specialized vocabulary of linguistics--relying on "common sense" terms like "past perfect" and "subordinate clause." But this is true only within stringent limits. Few literary scholars retain the full vocabulary of the pedagogical grammar they learned in the eighth grade. (Define the nominative absolute, for example; or illustrate the difference between a gerund and gerundive.) But even if they did, there would remain several serious drawbacks. This framework cannot be relied on to convey one's analysis accurately to other critics or to readers, since its vocabulary is not standardized; it rests on no underlying theory of language and linguistic behavior linking grammatical observations with communicative intent and effect; it does not go beyond the level of the sentence, so textual characteristics--features of larger stretches of discourse--escape its net altogether. These drawbacks are the more serious in that they cut across the very nature of literature, which is communicative and textual, and of literary criticism, which--through what Iser (1984:389) defines as "basically a cognitive act designed to tackle something noncognitive in nature"--strives to make the work of art accessible, not to mystify the reader further.

By contrast, contemporary linguistics offfers the student of literature a choice of descriptive vocabularies that are precise and rich, with underlying theories that inform the analytical procedures and models of language extending beyond the sentence to span the whole text. By way of illustration, we will look first at applications of linguistics to literary language at the level of the sentence and below inside what linguists generally view as the grammar proper--and then at textual structure.

THE STRUCTURE OF LANGUAGE: INSIDE THE GRAMMAR

The model of language most frequently used in analyzing literature at the level of the senctnece and below is a hybrid, and a variable one at that. In a decade and a half of practicing linguistic stylistics and teaching linguistics to students of literature, I have found that the model presented here--updated, augmented, and refined over the years--best serves the central purpose of linguistic stylistics, which is to illuminate the literary text. To this purpose everything else takes second place. Thus the model presented here (so eclectic as possibly to horrify theoretical linguists loyal to a single paradigm) combines the "classical" transformational grammar of Chomsky's Aspects (1965) with a version of case grammar originated by Fillmore (1968) and later modified by Halliday (1979, 1985) and others.

At the level of the sentence and below, language is viewed as having three components--phonology, syntax, and semantics--each of which consists of distinctive elements and rules for their arrangement. The grammar looks roughly like this (Moulton 1970:2-3 and personal communication):


SEMANTICS
SYNTAX
PHONOLOGY
deep structure
surface structure
thought (internal world)
sound (external world)
sememes in relational structure
morphemes in relational structure
morphemes in linear structure
phonemes in linear structure

Why this apparatus? It accounts for the amazing phenomenon of human communication, which transfers a multidimensional image (or proposition, if you will) from one mind to another. The message itself is of a different shape altogether, cast in a form that is one-dimensional, a linear sequence of phonemes conveying a linear sequence of morphemes. The grammar breaks down the magic into a sequence of steps which the sender (or encoder) of a message follows from left to right and the receiver (or decoder) follows from right to left. It allows us to conceive of the sender as beginning with a complex multidimensional conceptual structure and funnelling it into a one-dimensional string of sounds; of the receiver as reversing the process to arrive at more or less the original image. The grammar, then, is a device for pairing two quite discrepant things: sound and meaning. The difficulty of passing from one to the other without accident (either on the part of the sender or on the part of the receiver) lies at the heart of human language.

Literature, as writers are well aware, inherits this tension, this difficulty. "The construction of anything," says Paul Scott (1987:105), author of The Jewel in the Crown, "is controlled by the characteristics and properties of the material available." (Material cause and formal cause.) In a literary work, the difficulty is compounded by the fact that the reader interacts creatively with the writer in (re)constructing the image (Scott, 113-114; Iser 1978). The whole encoding/decoding collaboration must occur all over again in the realm of literary competence, the outer envelope: to "decode" a novel or a poem, as with any work of art, is to have an experience (Dewey 1934). But asking the question, How does the work say what it says--how does it create the reader's experience--means dealing first with the inner envelope, looking at the material of which the work is made.

Phonology

Understanding the phonological structure of language illuminates a wide range of literary elements: sound patterning (assonance, consonance, alliteration, and more subtle patterns that rely on relations between acoustic features or classes of sounds), sound symbolism, meter, prose rhythm, tone, dialect.[7] Consider Robert Frost's "Come In," for example.

As I came to the edge of the woods,
Thrush music--hark!
Now if it was dusk outside,
Inside it was dark.

Too dark in the woods for a bird
By sleight of wing
To better its perch for the night,
Though it still could sing.

The last of the light of the sun
That had died in the west
Still lived for one song more
In a thrush's breast.

Far in the pillared dark
Thrush music went--
Almost like a call to come in
To the dark and lament.

But no, I was out for stars:
I would not come in.
I meant not even if asked,
And I hadn't been.

Sound patterning in the poem involves the alternation of sequences of liquids (l, r) and nasals (m,n) with sequences of stops or consonant clusters (b, t, d, k, st-). The effect is a sort of rocking motion--the liquid and nasal resonants push the line along, while the stops (true to their name) periodically stop it. This effect is matched by the meter--alternating anapests and iambs in very short lines--which mimics the rhythm of the thrush's call. Sound pattern and meter converge with syntax to draw attention to figurative and structural devices in the poem. The chiasmus of dusk...inside, outside...dark (ll. 3-4), for instance, is heightened by the repeated [d--k] sequence bracketing it at either end and the slant rhyme linking the two inner elements--both of these repetitions neatly counterpointing phonetic similarity against semantic oppositeness; meanwhile, meter splits the chiasmus into its two halves. The most prominent halt in the poem's progress occurs exactly at its center:

> The last of the light of the sun
> That had died in the west
> Still lived for one song more
> In a thrush's breast.

Here the cluster [stst] brings the poem to a brief, breathless pause, like a horse jumping over a hurdle. At the center of the poem, it is also at the center of the most explicit expression of the poem's theme: carrying on (the thrush sings past nightfall, the speaker does not come in).

Contrasting Frost's poem with the following lines from Philip James Bailey's *Festus* (a poem of some 400 pages which went through more than fifteen American editions from 1845 on) illustrates both the usefulness and the limits of linguistic analysis.

> I saw the tears start in her eye,
> And trickle down her cheek;
> Like falling stars across the sky
> Escaping from their Maker's eye:
> I saw but spared to speak.

Here we find sound patterning very close to that of Frost's poem, but used to opposite effect. The repeated stops that interrupt the smooth course of the resonants evoke a feeling at odds with the subject, so that we picture tears spurting ludicrously, the grief of someone in a comic strip. The linked clusters across a line boundary ("sky Escaping"), like Frost's, halt the poem's progress; but, unlike Frost's, the pause does not reinforce the theme. Instead, the awkwardness of the sound enhances the grotesqueness of the image (the sky as God's eye, the stars as tears--the scale is that of a Warhol painting); and we are not surprised to encounter, in the next line, alliteration that is merely silly.

By now, of course, we have crossed the boundary between description and interpretation, since without understanding the poem we could not assess the fit between sound-pattern and theme. And in making a judgment about the fit, we have crossed the boundary between description and evaluation, as well. However, it is linguistic analysis that first discloses the phonological structure of both poems and correlates that structure with effects in the reader--the information that underlies our interpretation and evaluation. The modest but indispensable function currently claimed for linguistic stylistics (Fowler 1977, Leech and Short 1981) is just this: not sufficient, but necessary. Without crossing the boundaries, we could not have closed Spitzer's circle by returning to our original intuition of the poem's meaning, and so could not have said much of interest about the poem as a work of art. Without analyzing the sound structure of the poems, the interesting things we did say would have lacked exactitude; they would not have been grounded in observable features of the work.

Surface Syntax

In discussing the syntactic analysis of literary language, we will split the syntactic component of the grammar in half, grouping surface syntax with morphology, deep syntax with semantics. The first pair involves structures we can observe--they are right there on the surface of the sentence; the second involves structures we must infer. The range of surface syntactic applications to literature is considerably wider than that of phonological applications. For both prose and poetry, we find studies of individual works as well as studies that characterize the styles of individual writers, compare the styles of writers or schools or periods, and define varieties or levels of style.[8]

On the level of morphology and syntax, most studies take one of two positions toward the relation between literary language and ordinary language (Traugott and Pratt 1980:33). The first views literary language as a subset of the language available to the ordinary speaker/hearer--as choices from among the options offered by the grammar as a whole. The second views literary language as unlike ordinary language, characterizing it in terms of deviations from ordinary usage. Both views--deviance and choice--are useful; and often both are required in analyzing the style of a single writer or a single work. In fact, it is well to see deviance and choice as ends of a continuum. Isn't there a "tipping point" at which choice of a perfectly grammatical construction creates language so unacceptable that it really is deviant? (Consider the sentence, *Because because because he kissed her she hit him he cried she relented*, which embeds a grammatical clause structure inside itself to the point where it becomes difficult to decode [after Yngve 1960:452].) And isn't there a lower bound beyond which deviance is so quiet that it appears as merely an eccentric choice? (Consider utterances like *But me no buts* or [from an experienced poker player] *Chest your cards*.)

E. E. Cummings' poetry provides many illustrations of the interplay between deviance and choice on the level of morphology and syntax, as in "It's over a (see Just":

It's over a (see just
over this) wall
the apples are (yes
they're gravensteins) all
as red as to lose
and as round as to find.

Each why of a leaf says
(floating each how)
you're which as to die
(each green of a new)
you're who as to grow
but you're he as to do

what must (whispers) be must
be (the wise fool)
if living's to steal--
five wishes are five
and one hand is a mind

then over our thief goes
(you go and i)
has pulled (for he's wo)
such fruit from what bough
that someone called they
made him pay with his now.

But over a (see just
over this) wall
the red and the round
(they're gravenstiens) fall
with a kind of a blind
big sound on the ground

The poem repeatedly substitutes another part of speech for the one required by the syntax: verbs for nouns (*to lose, to find, die*, etc.);adverbs (*why, how, now*) for nouns; adjectives for nouns (*green, new, round*, etc.). This is patterned, not random, deviance. The target class is always nouns; the source classes are limited to three. Moreover, it is a departure sanctioned by the grammar. Functional shift (the use of a word as different parts of speech without changing its form, so that *cut*, for example, can be a verb, a noun, or an adjective) is a highly productive morphological device in English.

But the most interesting thing about the language of this poem is Cummings' use of what Mukařovský (1967) calls "foregrounding." In its broadest sense the essence of all art (Winner 1982:28-31), foregrounding results from the artist's endeavor to break new ground. It focuses the receiver's attention on the medium, fulfilling what Jakobson (1967) has called the "poetic function." Because of their unexpectedness, foregrounded elements stand out from the rest of the work and claim the reader's attention. Deviation from the grammar of ordinary language, as in Cummings' poem, always foregrounds a construction. But Cummings goes this one better: by establishing a pattern, he makes the reader expect a particular kind of deviance--the use of adjectives as verbs--and then he deviates from that pattern by reverting to ordinary usage. Coming to the lines

with a kind of a blind
big sound on the ground

the reader at first construes *blind* as an adjective-turned-noun, but then, reading on, is forced to reconstrue it as a true adjective. This doubletake, by focusing the reader's attention on the language, slows the poem down and strengthens its ending.

Deep Syntax and Semantics

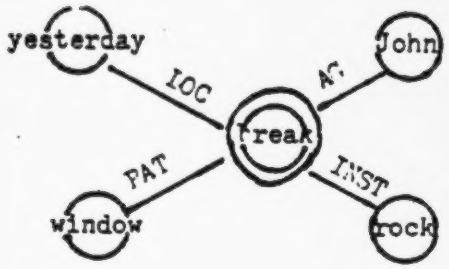
Because it is the component of the grammar closest to cognition itself, semantics is notoriously the most complex aspect of language and the most difficult for linguistic theory to capture. Janet Dean Fodor (1977:104) likens the effort to trying to reconstruct "a whole dinosaur through the odd shinbone." But despite the fact that semantic theory is in a state of some disarray (see Fodor 1977, Kempson 1977, Lyons 1977), it has been applied to literary language with considerable success.[9] The two most useful approaches are through semantic features and through role relation analysis.

Semantic features allow a precise characterization of metaphor and at the same time locate it relative to the grammar of ordinary language. Expressions like *a grief ago* and *seven oceans answer from their dream* depart from the grammar by violating selectional restrictions—collocating words whose semantic features clash. *A grief ago* pairs a noun that has the feature <-Time> with a context that requires <+Time> (Levin 1967:228); *seven oceans answer* pairs a subject that is <-Human> with a verb requiring a <+Human> agent. A linguistic perspective lets us see why metaphor, more than any other figure of speech, strikes us as characteristic of verbal art: because it deviates from the grammar of ordinary language, metaphor is always foregrounded.

Role relation analysis applies to the structure of the proposition underlying a sentence. The verb is viewed as central; the other elements in the sentences are its arguments, connected to it by labelled relations:[10]

• AGENT/FORCE	animate or inanimate entity responsible for action
• PATIENT	person or thing affected by action
• EXPERIENCER	animate being experiencing or receiving action (traditionally, the dative case)
• LOCATION	location in space or time (adverbial), including possession (the genitive)
• INSTRUMENT	inanimate means by which action is accomplished
• PATH	place or direction something comes to, from, or through

The sentence *Yesterday John broke the window with a rock*, for example, deploys its four noun phrases in the relations of Location, Agent, Patient, and Instrument, with respect to the central action of the verb. We can represent the relational structure of the sentence, following Halliday (1979), as



Now let us take a passage from Hemingway's A Farewell to Arms, in which role labels appear underneath the nouns or noun phrases.[11]

In the late summer of that year we lived in a house in a village that
LOC LOC PAT LOC LOC

looked across the river and the plain to the mountains. In the bed of
PATH PATH LOC

the river there were pebbles and boulders, dry and white in the sun,
LOC PAT LOC

and the water was clear and swiftly moving and blue in the channels.
PAT LOC

Troops went by the house and down the road and the dust they raised
AG/PAT PATH PATH AG//PAT AG

powdered the leaves of the trees. The trunks of the trees too were
LOC LOC PAT LOC

dusty and the leaves fell early that year and we saw the troops
AG/PAT LOC EXP PAT & AG/PAT

marching along the road and the dust rising and leaves, stirred by
PATH PAT & AG/PAT PAT & AG/PAT

the breeze, falling and the soldiers marching and afterward the road
AG(FC) PAT & AG/PAT PAT & PAT

bare and white except for the leaves.
PAT(?)

Under a role relation analysis the passage comes clear, we can account for, flesh out, and articulate our initial intuition about the passage: an oxymoronic sense of uneventful action, recounted by a puzzlingly elusive narrator. Simply establishing the ratio of static case roles (Patient, Location, Path) to dynamic ones (Agent, Instrument) shows how the language of the passage communicates a silent passivity though it describes action and movement. With one exception, the few active roles that occur are half of an active/inactive hybrid: troops, leaves, dust, soldiers are all simultaneously Agent and Patient, either because they are the subject of verbs of motion or because (filling two roles at the level of deep structure) they are objects of the narrator's perception as well as subjects of their respective verbs. Then there is the elusive narrator. The narrative voice presents itself only in the nonactive roles of Patient (we lived) or Experiencer (we saw). The narrator is a tenuous presence--an entity that can experience or undergo but not act.

At all three levels of linguistic structure--phonological, syntactic, and semantic--we began with an intuitive grasp of the work, analyzed its language, and returned to our starting point with an increased understanding of the work. The concepts of linguistics let us see our intuition in more detail, fleshed out in terms of the material of which the work is made; its terminology lets us communicate that increased understanding fully and precisely. Now we will look at conceptions of language that move beyond the confines of the individual sentence.

THE STRUCTURE OF LANGUAGE: BEYOND THE GRAMMAR

Developments of the last fifteen years or so in linguistic theory have had the cumulative effect of enlarging the three-part grammar we have been looking at. The result is a conception of language "stretched" two ways. Text-linguistics or discourse analysis stretches the grammar to accommodate utterances larger than a single sentence; sociolinguistics, psycholinguistics, and pragmatics stretch the grammar to include within its compass the speaker and hearer--their shared knowledge and assumptions that contribute to interpreting the message. Clearly this two-way widening of the grammar suits the purposes of literary study, which by definition focuses on texts and concerns itself with interpretation.

Text-Linguistics and Discourse Analysis

Systemic-functional grammar--in my experience, the model of language most useful for analyzing literature--extends the grammar described above to encompass the textual dimension of language (Halliday 1979, 1985). A text is created by means of cohesion and information structure. Cohesion comprises the linguistic features that link sentences into a whole: anaphora, substitution, ellipsis, lexical repetition, and transitional adverbs (Halliday and Hasan 1976). Information structure comprises the aspects of sentence structure that select from and order the propositional raw material: the concepts of topic/comment (or theme/rheme) given/new information, and shared/unshared information (Halliday 1979). Spanning a collection of sentences, cohesion and information structure create the unity that makes them a text.

Looking again at the opening passage from A Farewell to Arms, we can trace the creation of a unified text that is more than the sum of its sentences. Lexical repetition gives the passage a high degree of cohesion: the water, the troops, the dust, the leaves, evoked and re-evoked in an almost incantatory fashion, make the text circle back to where it began, just as the passing of the troops ultimately returns us to the empty landscape. The helicopter effect--hovering over a scene--intensifies the feeling of motion-in-stillness established on the semantic level by the manipulation of role relations. The elusiveness of the narrator is also intensified on the textual level; information is structured in a way that positions the reader close to the narrator's consciousness. Demonstrative and definite article create a sense of shared information. "In the late summer of that year," the passage begins; and the reader is instantly inside the world of the novel. "The river," "the plain," "the mountains" paint a landscape already familiar, part of a world the reader shares with the narrator. The bare pronoun we, unadorned by any explanatory reference and ambiguously including the reader (is it "I and others" or "you and I"?), draws the reader further in. And so by the end of the first sentence the reader has been co-opted. The rest of the passage builds on the devices of the opening. The dense tissue of definite articles creates layers of shared referents (not only the river, the plain, the mountains, but also the troops, the trees, the leaves, the road). The bare pronoun continues as the only sign of the narrator's presence, minimizing as much as possible the distance between teller and listener.

Literary applications of text-linguistics and discourse analysis, which have tended to focus on prose fiction, testify that they provide a realistic way of looking at language. They bring us closer to language as speaker/hearers actually use it--not in isolated, careful sentences, but in larger, sometimes sprawling stretches of text.[12] Sociolinguistics, psycholinguistics, and pragmatics are realistic in another way: they take into account the behavior, as well as the utterances, of actual speaker/hearers in the act of communicating.

Sociolinguistics, Psycholinguistics, and Pragmatics

Taken together, sociolinguistics, psycholinguistics, and pragmatics look at language behavior--how speaker/hearers use the grammar to communicate with each other. Here we are dealing with both the production and the interpretation of utterances. We need, therefore, to consider resources shared by speakers of a language beyond the grammar (both of individual sentences and of texts): interpretive conventions (speech act theory and pragmatics); expressive or paralinguistic phenomena like register, key, and delivery; the shared assumptions, norms, and beliefs of the culture;

cognitive constraints and strategies.[13] Because these concerns propel linguistics out into the territory of psychology, sociology, anthropology, and philosophy, hybrid subdisciplines have sprung up--as the very terms "psycholinguistics" and "sociolinguistics" reflect.

As with other aspects of language, it is impossible to do justice here to the depth and breadth of literary applications that sociolinguistics, psycholinguistics, and pragmatics afford. A sampling would include: dialogue and other embedded speech in narrative fiction; dramatic exchanges, both verbal and non-verbal; marginal or problematical genres (oral narrative, the literary riddle, and vernacular art forms such as the "dozens" and greeting cards); current issues in critical theory (the structure of narrative, the validity of reader-response criticism, the relation between author and reader).[14]

If current linguistic theory's stretching of the grammar evokes in literary critics a feeling of plus ça change--Keir Elam (1984:193), for example, notes the similarity of Grice's maxims to principles of discourse articulated in the Renaissance--that is not surprising. Both of the directions taken by current linguistic theory widen the grammar to encompass aspects of communication once the province of rhetoric. Like rhetoric, text-linguistics and discourse analysis look at structure on a large scale; like rhetoric, the hybrid subdisciplines of sociolinguistics, psycholinguistics, and pragmatics focus on how language achieves effects and elicits responses. Perhaps linguistics is moving in a direction that will eventually reunite the study of language and the study of literature? In any case, one consequence of current disciplinary crossover--an important one for literary study--has been to keep linguistics from the narrowness and abstraction inherent in focusing exclusively on the structure of the sentence in isolation. For literary study, this means less need to fear reductionism. The possibility that, in taking apart the language of a literary work, "we murder to dissect"--reducing a poem or novel to a rubble heap of phonemes and morphemes--is countered by the essentially centrifugal force of the need to account for how speakers communicate.

CONCLUSION

There is no single approach to literature, says Richmond Lattimore. Rather, "the inner form is alive and various. To try to recognize and re-enact these forms is to enjoy the closest communication with the subject" (1958:147-8). Linguistics gives the student of literature an analytical tool the sole purpose of which is to describe faithfully the workings of language. It provides a theoretical framework, an analytical method, and a vocabulary for communicating its insights that are all designed to serve concerns other than literary interpretation and evaluation--that are all, as linguists say, independently motivated. Linguistic analysis is therefore another "way into" the literary work, an independent point of entry.

The reader who approaches a literary work through its language meets it on its own ground, understanding the materials from which it is made, able to see its artistry against the background of what those materials allow, facilitate, preclude. Linguistic analysis imposes a measure of objectivity, a check on the reader's initial intuition; it provides the means for articulating that intuition; it functions heuristically, suggesting directions to explore. The figure linguistic analysis makes is the mirror image of the figure a poem makes. The reader who follows Spitzer's circle--moving from an initial intuition of the work through an analysis of its language to arrive a deeper understanding of the work--reverses the process by which the work of art is made. That reader or critic--that student of literature--grasps the poem or play or novel through intuition winged by exactitude.

NOTES

[1] I am grateful to the following scholars for comments and discussion: Catherine V. Chvany, Sam Driver, Bruce A. Rosenberg; any errors of course are mine.

[2] My poetry and short stories (which have won two national awards) have appeared in the Chicago Tribune, The Southern Review, Ascent, Crosscurrents, Kansas Quarterly, and elsewhere.

[3] On defining the functions of criticism, see Adams 1971 (Preface), Austin 1984, Fowler 1981, Gombrich 1984, Hirsch 1976, Iser 1984, Steinmann 1975.

[4] The charge of inconsistency leveled by Mair (1985:123-4) against Cummings and Simmons 1983 is groundless if we take an instrumental view of the function of linguistic analysis within literary criticism; and it is unfounded even by Mair's own standards, since different periods and cultures create different contexts.

[5] When Culler (1975:18-20) defines literary competence as the set of conventions for reading literary texts shared by author and reader, he is using the term to refer only to the third of these smaller envelopes. Like Culler, Schauber and Spolsky (1986:20) list literary competence as one of three components--linguistic competence (a "Chomskyan autonomous grammar"), pragmatics, and literary competence--that make up the reader's necessary resources in approaching literature; however, they then go on to use the term "literary competence" to comprise all three of these components operating together. Implicit or explicit modeling of literary competence on linguistic competence has tended to further confuse the two, and the inadequacy of attempted formalizations of literary competence then appears to reflect badly on linguistic stylistics. But the existence, nature, and function of literary competence constitute a separate issue from that of the usefulness of linguistics to literary study.

[6] Chvany 1986--in effect a protocol analysis of the literary translation process--illustrates vividly the complexities involved; see also her essay in this volume on linguistics and translation.

[7] For phonology, as for the other levels of linguistic structure discussed here, to list all the worthwhile applications would be impossible; in each case, my suggestions are limited to studies easily accessible in anthologies or to book-length works. For phonology, a few such applications are those in Chatman and Levin 1967 (the sections on "sound texture" and metrics), Sebeok 1960 (the section on metrics), Freeman 1970 (the section on metrics); Halle & Keyser 1971. Phonological treatments of prose are fewer: see, for example, Wexler's essay on Corneille and Racine (in Fowler 1966), Lodge 1966, Page 1973, Crystal 1975.

[8] Some classic studies accessible in anthologies are Francis'

unraveling of a Dylan Thomas poem (Chatman and Levin 1967), Miles' account of English poetic styles (Chatman and Levin 1967), Wells' "Nominal and Verbal Style" (Sebeok 1960), Brown and Gilman's "Pronouns of Power and Solidarity" (Sebeok 1960), Hayes' comparison of Gibbon and Hemingway (Freeman 1970), Milic's analysis of Swift (Freeman 1970), Dillon's "Inversions and Deletions in English Poetry" (Ching _et al._ 1980), Sinclair's "Taking a Poem to Pieces" (Fowler 1966). Book-length studies of prose fiction with illuminating discussions of morphology and syntax include Fowler 1977, Lodge 1966, Leech and Short 1981. See also Cluysenaar 1976, Epstein 1978, Cummings and Simmons 1983.

[9] Not only individual instances of metaphor have been illuminated in this way (for example, Levin 1967, Leech 1969, Lunsford's study of Byron [Ching _et al._ 1980], Thorne [Freeman 1970]), but also metaphor in general (Jakobson 1960, Levin 1977, Bickerton [Ching _et al._ 1980]) and related figures of speech like the kenning (Stewart 1979) and metonymy (Jakobson and Halle 1956).

[10] The approach to deep structure illustrated here is essentially a case grammar approach. Two versions of role relational analysis useful for literary study are Halliday 1985 and Traugott and Pratt 1980; they differ as to the number and nature of roles. The inventory of labelled relations used here, adapted from William G. Moulton's (personal communication), is the one I have found most useful.

[11] Traugott and Pratt (1980:223) suggest this passage as a good prospect for role relational analysis; they analyze only the first sentence, using somewhat different labels from the ones given here.

[12] Some literary applications of text-linguistics or discourse analysis are Halliday's analysis of Golding's "The Inheritors" (Chatman 1971), Leech and Short 1981, Fowler 1977, Hasan 1985, and essays in Chafe 1980 and Carter 1982. Formulations of text-linguistics and discourse analysis other than Halliday's include Van Dijk 1977, Van Dijk and Kintsch 1983, Coulthardt 1977, Hopper and Thompson 1980.

[13] On interpretive conventions, see, for example, Austin 1962, Searle 1975a, Gazdar 1979, Levinson 1983, Grice 1975; on expressive or paralinguistic phenomena, see Joos 1967, Halliday 1985, Hymes 1974, Goffman 1974, 1981; on the shared assumptions, norms, and beliefs of the culture, see Hymes 1974, Labov 1972a, Romaine 1982; on cognitive constraints and strategies, see Clark and Clark 1977, Miller and Johnson-Laird 1976.

[14] Examples of the literary application of sociolinguistics, psycholinguistics, and pragmatics are the following: for dialogue and other embedded speech in narrative, Page 1973, McHale 1978, Banfield 1982; for drama, Burton 1980 and remarks in Clark and Carlson 1982; for marginal or problematical genres, Labov 1972b, some

of the essays in Chafe 1980 on oral narrative, Stewart 1983 on the literary riddle, Labov 1973 and Smith 1978 on vernacular art forms. Current issues in critical theory include, among others, the structure of narrative (Pratt 1977, Chatman the validity of reader-response criticism (Kintgen 1976, Fish 1980) and the relation between author and reader (Searle 1975b, Fowler 1981, Prince 1982, Chatman 1980, Dillon 1986, Porter 1986).

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APPENDIX 4-E

Linguistics and the Teaching of Science

by

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The views expressed are those of the authors and do not necessarily reflect the position of the LSA or the National Endowment for the Humanities.

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PREFACE

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Project oversight was provided by a Steering Committee that was appointed by the LSA Executive Committee in 1985. Its members were: Judith Aissen (University of California, Santa Cruz), Paul Angelis (Southern Illinois University), Victoria Fromkin (University of California, Los Angeles), Frank Heny, Robert Jeffers (Rutgers University), D. Terence Langendoen (Graduate Center of the City University of New York), Manjari Ohala (San Jose State University), Ellen Prince (University of Pennsylvania), and Arnold Zwicky (The Ohio State University and Stanford University). The Steering Committee, in turn, received help from a Consultant Panel, whose members were: Ed Battistella (University of Alabama, Birmingham), Byron Bender (University of Hawaii, Manoa), Garland Bills (University of New Mexico), Daniel Brink (Arizona State University), Ronald Butters (Duke University), Charles Cairns (Queens College of CUNY), Jean Casagrande (University of Florida), Nancy Dorian (Bryn Mawr College), Sheila Embleton (York University), Francine Frank (State University of New York, Albany), Robert Freidin (Princeton University), Jean Berko-Gleason (Boston University), Wayne Harbert (Cornell University), Alice Harris (Vanderbilt University), Jeffrey Heath, Michael Henderson (University of Kansas), Larry Hutchinson (University of Minnesota, Minneapolis), Ray Jackendoff (Brandeis University), Robert Johnson (Gallaudet College), Braj Kachru (University of Illinois, Urbana), Charles Kreidler (Georgetown University), William Ladusaw (University of California, Santa Cruz), Ilse Lehiste (The Ohio State University), David Lightfoot (University of Maryland), Donna Jo Napoli (Swarthmore College), Ronald Macaulay (Pitzer College), Geoffrey Pullum (University of California, Santa Cruz), Victor Raskin (Purdue University), Sanford Schane (University of California, San Diego), Carlota Smith (University of Texas, Austin), Roger Shuy (Georgetown University), and Jessica Wirth (University of Wisconsin, Milwaukee).

0. Many educators in the United States are currently involved in what Edward B. Fiske in a recent New York Times article calls "Searching for the Key to Science Literacy" (Education Life supplement, January 4, 1987, pp. 20-24). There is a concern that many Americans are ill-equipped by their so-called science education to make rational decisions about the issues in their daily lives that require knowledge about the world of science. Although the United States continues to produce more Nobel Prize laureates than any other country, the average citizen, the average public school student, is rapidly approaching scientific illiteracy. David A. Goslin, executive director for education at the National Academy of Sciences (quoted in the January 4 article) is concerned about democratic society "if a high proportion of its members are uninformed about what constitutes scientific evidence."

The fact is that American students don't study much science, and too often what they do study is badly taught, with emphasis put on what science has, in the past, concluded, rather than on the process of **doing science**. In general, students are not taught to look at the world scientifically; they are not taught to formulate or recognize the interesting questions. As the Times article puts it, "the goal [of science education should be] to convey to students the way in which scientists think and work .... Columbia [University]'s Dean Pollack stresses that science is not a series of conclusions but a way of thinking about the world. 'Science is essentially a structure for asking questions,'...."

The thesis of this paper will be that linguistics, and cognitive science more generally, have much to offer for the teaching of basic science, that is, in the teaching of how to ask and investigate interesting questions. For a number of important reasons, linguistics is particularly well-suited for teaching about the process of doing science. The methodology appropriate to the study of language from a generative viewpoint is essentially that of the natural sciences. Linguistics differs from the traditionally recognized natural sciences, however, in that it is a branch of cognitive science. For the reasons to be discussed below, this makes it particulary advantageous for science teaching. This paper will first illustrate that linguistic methodology is, in fact, scientific methodology. It will then proceed to outline the particular advantages linguistics provides in science education.

1. In the science classroom, students are still taught (at the most naive level) that to do science one must:

a. carefully observe some aspect of the world;
b. collect and organize the observations;
c. search for regularities within the observations;

d. draw logical conclusions based on the observations;
e. test the conclusions (in a laboratory-type environment).

While there might be much discussion about the value of these steps in the day to day work of science, to the extent that they actually have anything to do with "the scientific method" and "doing science", linguistics is an appropriate teaching tool. (Criteria of this sort are often introduced in the early chapters of textbooks for laboratory science, see for example Cotton and Lynch, Chemistry: An Investigative Approach.) The observations relevant to points a.-d. will be of linguistic phenomena. The tests of point e. are readily conducted in terms of native speaker intuitions about the grammaticality of sentences. This can be illustrated by a sample linguistics "lesson".

Let us take an example of controlled and organized observation about which conclusions can be drawn and tested. The students' attention can be directed toward certain sentences of English that happen to contain the words up and down in a particular grammatical construction. (Following general convention in linguistics, an asterisk preceding a string of words indicates that the string is not a good sentence of the language under investigation, that is, the string is ungrammatical.)

The linguistic observations:

(1) John looked the information up.
John wrote the telephone numbers down.
John looked it up.
John wrote them down.
John looked up the information.
John wrote down the telephone number.
*John looked up it.
*John wrote down them.

These observations can be organized according to whether the direct object in the sentence is a full noun phrase (e.g. the information) or whether it is a pronoun (e.g. it).

Organization.:

(2) Noun phrase direct objects

look the information up
write the numbers down
look up the information
write down the numbers

(3) Pronoun direct objects

look it up
write them down
*look up it
*write down them

Once the data is appropriately organized, certain regularities emerge with respect to the distribution of direct objects and the words up and down.

Regularities:

Noun phrase direct objects can be preceded or followed by up and down. Pronoun direct objects can be followed by up and down, but they may not be preceded by them.

Several logical conclusions can be drawn, based on the observable regularities.

Conclusions consistent with the data:

a. Sentences cannot end with pronouns.
b. Pronouns must immediately follow verbs.
c. Two-part verbs like look up and write down can be followed by noun phrases but not by pronouns.

Each of the logical conclusions can be tested. The tests are laboratory-type experiments in that they are invented by the scientist and performed in an artificial and controlled environment.

Testing of the possible conclusions:

a') Can a sentence end with a pronoun? The test involves constructing a sentence with a pronoun at the end: John talked to **him**. The fact that this sentence is grammatical disconfirms conclusion a), causing it to be rejected.

b') Must a pronoun always immediately follow a verb? The test involves constructing sentences in which a pronoun does not immediately follow a verb: **He** talked to John, John talked quietly to **him**. These sentences are grammatical and therefore conclusion b) is disconfirmed and rejected.

c') Is it true that look up and write down can be followed by noun phrases but not by pronouns? Evidence is found by making up further English sentences:

(4) Mary tried to look up those old quotations.
Susan looked up her old friend.
*She tried to look up those.

*She looked up her.
Jill wanted to write down the appropriate answer.
*Jill wanted to write down it.

Each of these sentences supports conclusion c). In fact, no sentence of English will be found to disconfirm it. Furthermore, the conclusion seems to be accurate not only about the two two-part verbs in the given data, but also about other such verbs:

(5) John picked up the baby.
John picked the baby up.
John picked it up.
*John picked up it.
John threw the newspapers out.
John threw out the newspapers.
John threw them out.
*John threw out them.

Conclusion c) is supported by the test and is consistent with all the collected observations.

Of course, as any generative linguist or other practicing scientist would comment, there is much more to science than the orderly arrangement and analysis of some collected data. At a more sophisticated level, science is understood to be the search for relationships that explain and predict the behavior of the observed phenomena. On this view, to do science a student must learn and appreciate the meaning and value of scientific theories.

A student educated in the "culture of science" must recognize (at least) the following points (summarized, in large part, from Williams, Trinklein, and Metcalfe (1980) Modern Physics; Chomsky, particularly (1957) Syntactic Structures; and Newmeyer, (1986) "Has there been a 'Chomskyan revolution' in linguistics?", Language 62, 1-18):

a. that science deals in **principles** that describe natural phenomena;
b. that science involves **theory formation**;
c. that a scientific theory must **explain** observed phenomena;
d. that science involves **model** building;
e. that scientific theories are judged useful with respect to whether or not they **predict** previously unobserved behavior;
f. that scientific theories are subject to **experimental testing**;
g. that science necessarily involves **hypothesis formation**;
h. that hypothesis formation requires **imagination** and that discovery procedures play a very limited role;
i. that there is an important distinction between discovery

procedure and evaluation procedure, or **practical description** and **formal theory**;

j. that scientific conclusions have a special responsibility to **truth** about the observable world;

k. that a crucial experiment can disconfirm, but that no amount of experimentation can show an hypothesis to be necessarily true, and therefore, that scientific **open-mindedness** is important.

These points of scientific methodology are central to research in generative linguistics. This is persuasively argued by Chomsky in the chapter "Goals of linguistic theory" of his book Syntactic Structures. There the case is made for approaching **grammar** as a theory of language. Grammar construction is seen as model building and the grammar is expected to make accurate predictions about native speakers' knowledge of language. Chomsky argues that grammars, just like theories in the physical sciences, are subject to constraints on construction and evaluation. Criteria for choosing the best grammar are essentially the same as the criteria for choosing the best theory in any other scientific endeavor. The grammar, the theory, must be subject to experimental testing, and it must meet criteria of both internal and external adequacy. The grammar must be internally consistent (free from self-contradiction) and must be consistent with other good theories of allied phenomena (for example theories of other human cognitive capacities). A scientifically interesting grammar is evaluated in terms of its usefulness in explanation, or in other words, its relationship to truth. A grammar is successful only to the extent that it does in fact explain speakers' knowledge of grammatical sentences.

These last points can be exemplified by the following sample "lesson" of a grammatical rule as a theoretical construct that explains a certain phenomenon and predicts certain new observable facts:

Observation: Sometimes two different sentences can mean the same thing. For example:

(6) a. Susan gave the book to Jill.
    b. Susan gave Jill the book.

How can it be that speakers of English know that these two sentences mean the same thing even though they are different in form?

Hypothesis: A grammatical principle, a meaning-preserving rule of grammar, relates sentences of type (6a) to sentences of type (6b). This hypothetical rule involves only sentences with verbs that take two objects, that is, ditransitive verbs. Informally stated this rules says:

Ditransitive verb phrases can be made up of a Verb followed by a Direct Object Noun Phrase followed by an Indirect Object Prepositional Phrase; alternatively, a ditransitive verb phrase can be transformed into a Verb followed by an Indirect Object Noun Phrase followed by a Direct Object Noun Phrase.

This rule of grammar is a principle that accurately describes the relationship between sentence (6a) and sentence (6b). It is also a theory in that it explains (or purports to explain) the relationship between these two sentences: native speakers of English recognize sentences (6a) and (6b) as related because the hypothesized rule is part of their grammar. This explanation takes (6a) and (6b) not as an isolated fact, but as evidence of a general principle.

The hypothesized rule involves model building in the sense that it utilizes theoretical constructs, like "ditransitive", "phrase", "object", etc.

The rule predicts the occurrence of new data, for example:

(7) Joe mailed the letter to Bill.
Joe mailed Bill the letter.
Daddy baked cookies for the children.
Daddy baked the children cookies.
Etc.

The rule is subject to testing. If correct as stated, then every ditransitive verb will be found in both of the indicated sentence variants.

The rule is an hypothesis and was discovered by the use of imagination, that is, there is no discovery procedure that would necessarily lead to this particular rule.

This rule will be evaluated as "right" or "true" just to the extent that its empirical predictions are accurate, that is, to the extent that all ditransitive verbs can in fact occur both ways.

The rule as stated can be disconfirmed by evidence like the following:

(8) We contributed $10.00 to the zoo.
*We contributed the zoo $10.00.
We fabricated an alibi for the judges.
*We fabricated the judges an alibi.

The data in (8) provide empirical evidence that the hypothesis, the proposed rule, is in need of modification. If it cannot be modified appropriately, it will need to be replaced by a more adequate rule.

Ultimately the theory, the grammar, will be a set of all the "true" rules for the language under investigation.

2. Once it is understood that generative linguistics is a scientific discipline, the argument can be made that it can be used particularly advantageously in the teaching of science. The argument proceeds in two stages: first, that cognitive science provides important opportunities for science teaching, and second, that linguistics is the most appropriate subfield of cognitive science for such a program.

Cognitive science is the study of innate or acquired knowledge and of the beings, particularly humans, who have this knowledge. The disciplines that together have come to be known as cognitive science include linguistics as well as certain aspects of psychology, artificial intelligence, neuroscience, anthropology, and philosophy. As Gardner, (1985) The Mind's New Science, puts it, cognitive science is the "empirically based effort to answer ... epistemological questions."

As can be argued based on the large numbers of students in psychology classes (most of which are definitely not taught as science), students are naturally interested in things having to do with "human nature." It would seem obvious, from enrollment data, that most students are more interested in the nature of memory, language, vision, etc., than in the nature of mass, energy, valences, and hydrocarbons. The epistemological underpinnings of cognitive science make it especially appealing to large numbers of students. A university intent on improving the basic level of understanding of scientific inquiry should capitalize on this evident interest on the part of students. The prediction is that a course designed to teach scientific methodology, to instruct undergraduates in the "culture of science," will be more successful if the methodology is taught based on subject matter that the students find inherently interesting. Ideally then, this inherent interest will be stimulated and scientific inquiry will be extended to other areas, including the traditional natural sciences.

As the above-mentioned Times article makes clear, science literacy is not a problem for the bright and highly motivated students who are naturally attracted to math and science. The issue of problematic science teaching is relevant to the typical liberal arts student who does not plan to continue on in the study of science, and who may not understand the central importance of science to liberal arts. Such a student may not even realize that science is a part of a liberal arts education. This connection is easily seen through the study of cognitive science because of its epistemological nature. Its relationship to philosophy and the humanities more generally is easily understood because the topics of discussion are so often similar. (This general point is also made, in rather different terms, in Heny, (1987 manuscript) Linguistics in a Liberal Education.)

Another advantage of cognitive science for science teaching is that little advanced math is necessary (this point is from Heny, op.cit.). While the importance of the teaching of mathematics in and of itself should not be underestimated, formal reasoning can be taught without it. Entrance into courses in the various areas of cognitive science, such as linguistics, need not depend on requirements in the advanced math that many students do not (cannot?) master, e.g. the plane geometry, trigonometry, and calculus necessary for physics. Cognitive science depends more crucially on the type of formal reasoning encountered in early courses in symbolic logic or first order predicate calculus. These will in general be more accessible to the typical undergraduate than more advanced mathematics.

Once it is demonstrated that cognitive science has advantages for the teaching of science, the further argument can be made that within cognitive science, linguistics is particularly relevant for teaching purposes.

As a practical matter, linguistics is "cheap." It requires no expensive laboratories or equipment. Additionally, all the relevant data is readily available to everybody who has acquired a language. Students become involved in the scientific investigation of their own language, and every student has equal access to both the data to be studied and the necessary "equipment" for studying it. Because no high-cost laboratory installation is necessary, and because any human language is equally valuable as the domain of investigation, there is no inherent inequality among schools subject to different funding bases. Linguistics can be taught equally well in poor schools and in well-funded schools. (This point is argued convincingly by both Ken Hale and Wayne O'Neil, personal communication.)

Another relevant practical matter involves the fact that linguistics has an immediate connection to computer science. Regardless of what effects computer science is having on linguistics proper (there are those who would argue that the main effect is to drive linguistics away from its basic aim of studying human cognition), the relevance of linguistics to computer science is undeniable. Advances in computation are becoming increasingly dependent on the kind of input about language that linguists are uniquely capable of supplying. This means that students will see the career opportunities available through the study of linguistics. Regardless of the long-term effect that this will have on the state of scientific linguistic inquiry, it is something that educators can exploit in attracting students to a field where they will learn scientific methodology.

Finally, to the extent that cognitive science is the study of **human** cognition, the human mind, linguistics is central to it. Aspects of language structure are determined by the structure of the mind and, importantly, language is peculiar to humans. The study of human cognition cannot proceed in a meaningful manner without attention to language. Linguistics could well serve as the core of a curriculum in cognitive science.

Returning briefly to the Times article with which this essay began, James Rutherford of the American Association for the Advancement of Science is quoted as saying, "Science is not a list of facts and principles to learn by rote; it is a way of looking at the world and asking questions ... Kids go in, set up some equipment, gather data and verify a predetermined conclusion --all in 45 minutes. And verifying what Newton did 300 years ago is hardly science. Does anyone ever ask whether Newton might have got it wrong?" An important advantage of linguistics is that it is a very new science. It is so new that even relatively young researchers can be creatively involved in issues at the forefront of the discipline, often showing that some other researcher in the forefront in fact "got it wrong."

A fitting summary to any paper on the value of linguistics in science teaching comes from Hale's (1975) MIT manuscript Navajo Linguistics: Part I:

> One might well ask why it is useful to study a language which one already knows. The answer to this question is a rather long story, but it is the same as the answer to the question "why do we study biology, chemistry, and physics?" "Why do we study science at all?" The reason is that we wish to find explanations for the things that we observe....
>
> The study of language -- i.e. linguistics -- is also a science. We know that people are able to speak languages, but we know very little about what this means....The question is: why [are they] able to do this? The linguist tries to answer this question. He tries to construct a theory which will account for this ability....
>
> Linguistics is not a physical or biological science; rather, it is the study of a certain aspect of the human mind. We know that a person's knowledge of his language is stored in the brain, but we cannot observe it directly. What we do observe is his speech -- on the basis of this, we try to construct a theory of what is in the brain. This is exactly what is done in other sciences -- if some object is not directly observable, a theory, or model, is constructed which can duplicate the observable behavior of the object.

> The theory is correct to the extent that it can accurately duplicate this observable behavior.
>
> The linguist is in one respect better situated than other scientists. He does not need a lot of equipment to observe the data he studies -- he has in his head a knowledge of his own language; he can therefore observe his own speech.

What defines a science is not the phenomena that it purports to explain (i.e. aspects of the physical world), but rather the manner of inquiry, the methodology, that is used in attempting to achieve that explanation. In this sense cognitive science in general, and generative linguistics in particular, qualifies, along with physics and biology, as science. In the curriculum planning which will be inevitable to improve the teaching of science on the nation's college campuses (as well as in the high schools and grade schools), the advantages of linguistics should not be overlooked.

APPENDIX 4-F

Linguistics as a Cognitive Science and Its Role in an Undergraduate Curriculum

by

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The views expressed are those of the authors and do not necessarily reflect the position of the LSA or the National Endowment for the Humanities.

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Over the past decade. cognitive science has developed in such a way that it is now more possible than it has ever been to gain insight into the general workings of the mind through the study of language. The reason is that language is not self-contained. It makes use of the apparatus of general cognition. The kinds of categories and processes used in language are the kinds of categories and processes used in cognition in general. The semantic system of a natural language is the conceptual system that we use in thought. The grammar of a natural language is a reflection of that conceptual system. as well as a reflection of the principles governing communication. As a consequence, the study of natural language syntax and semantics makes it possible to gain insight into the nature of thought. communication. culture, and literature.

It is for this reason that the undergraduates I teach are overwhelmingly enthusiastic about linguistics in the cognitive tradition. My students have a world of passionate interests: What is thought? How do people comprehend what they experience? Can a computer think? What is the relationship between the brain and the mind? What is learning? How is our political life affected by our modes of thought? Do people in nonwestern cultures have different conceptual systems? Why does miscommunication occur? Is it possible for us to change our cultural values? How is poetry understood? What is a scientific theory? Above all, they are trying to make sense of all the theories they encounter—theories of literature, theories of culture. theories of mind, philosophical theories, political theories, even linguistic theories?

They come from a wide range of departments. They are interested in linguistics because it takes a general cognitive perspective and because it has made progress in addressing such issues seriously, by giving detailed technical answers to carefully formulated, empirically studiable questions.

The three books I have written (or co-authored) over the past decade have been intended to do double duty both as contributions to cognitive linguistics and as textbooks that make it possible to address such questions in courses. Our department now has a set of cognitive linguistics courses. They are open without prerequisite. The students in these courses have tended to come from departments as diverse as mathematics. comparative literature. computer science, anthropology. philosophy, psychology. education, history, and art, as well as various language departments. They are sent by faculty members who have learned that linguistics has in recent years come to address issues of very general concern. The response of students to the subject matter has been overwhelming, no matter what fields they come from. and what students learn in these courses often change their perspectives on their own fields dramatically. After taking cognitive linguistics courses. students with such general interests often go on to take other linguistics courses in order to get a solid basis for exploring further issues both within and outside of linguistics proper that they have a deep interest in.

To get a sense of why students from other disciplines are interested in contemporary linguistics. let us consider some concrete questions from various fields that we take up in linguistics courses at Berkeley:

Literary Analysis: How can linguistics be of significant use in the study of literature, say in traditional problems of the analysis of metaphor, metonymy, imagery, and so on?

Literary Theory: What does linguistics have to say about the validity of various contemporary literary theories -- deconstructionism. hermeneutics, semiotics, and so on?

Metaphysics and Epistemology: Does the world come divided into natural kinds, defined by the essential properties of their members? Is reality independent of the minds of any beings? The standard philosophical views answer yes to such questions. Are these views correct?

Logic, Semantics, Human Reason and Imagination: Does formal logic capture anything real about human thought? If so, what? Where, if at all, do the methods of formal logic fail in the study of natural language semantics? What is the relation between reason and imagination.

Philosophy: What can linguistics contribute to the dispute between analytic philosophers and the anti-analytic philosophers (Rorty, Putnam, the various Constinental movements. etc.)?

Philosophy of science: What does linguistics have to tell us about what a scientific theory is? Is it consistent with deductive-nomological approaches? With a Kuhnian approach? What does it tell us about relativism?

Artificial Intelligence: Is a computer capable of meaningful thought? Is thought the manipulation of discrete symbols? Does linguistics have anything concrete to contribute to extending the domain of problems that AI can deal with?

Cognitive Psychology: How does linguistics contribute to our understanding of categorization and of cognitive schemata? What does it tell us about the nature of mental imagery?

Anthropology: Can linguistic methods help in characterizing a culture? Are conceptual systems universal, and if not, how do they differ? Does linguistics have anything to say about such traditional problems as kinship, and the characterization of significant cultural categories?

Neurally-inspired cognitive models: How well do connectionist theories mesh with what is known from linguistics about conceptual systems and linguistic structure?

Although these concerns could be addressed in courses of many kinds, I have, because of my own specific interests, chosen to address these concerns in two courses: *Metaphor* and ***Introduction to Cognitive Linguistics.***

Metaphor surveys results obtained since Michael Reddy's classic 1979 paper "The Conduit Metaphor" and Lakoff and Johnson's *Metaphors We Live By.* Those works demonstrated that thought is metaphorical and that much of everyday language is a reflection of metaphorical modes of thought that most people are not aware of. Since then, the study of metaphorical thought has been greatly expanded in a number of disciplines, as reflected in the bibliography below. For students of literature, I have just completed a new textbook on poetic metaphor with Mark Turner called *More than Cool Reason.* The other questions in the list are taken up in the ***Introduction to Cognitive Linguistics*** course, which uses as principal texts my ***Women, Fire, and Dangerous Things,*** and Gilles Fauconnier's *Mental Spaces.*

The Central Role of Linguistics In Contemporary Intellectual Controversies

One of the reasons that linguistics attracts so many students at Berkeley is that it is at the center of controversies in many fields. To understand the nature of these controversies and to be intelligently informed as to what they are, one simply has to know the relevant linguistics. Here are some of the areas where linguistics is at the center of current intellectual controversies:

Literary Theory: Deconstructionist analysis makes use of the doctrine of the "free play of signifiers", which is an adaptation of Saussearean linguistic theory. It also makes major use of De Man's (1978) approach to metaphor. Turner (1987) has claimed that evidence from metaphor research within linguistics is incompatible with the basic theory behind deconstructionist criticism. Since literary theory makes use of linguistic theory, the issue can be discussed intelligently only by those familiar with the requisite linguistics.

Philosophy: Traditional views in Anglo-American philosophy on a wide range of topics, including epistemology, the theory of meaning, the nature of rationality, and the philosophy of mind, have been vigorously challenged in recent years. Most of these issues arise in the context of debates over the empirical adequacy of the symbol manipulation paradigm, used in traditional artificial intelligence (AI) and generative linguistics. Here is some of the relevant literature:

The Traditional AI View: Haugeland (1985). Gardner (1985). Hofstadter and Dennett (1983).

The Anti-AI Reaction: Winograd and Flores (1985). Searle (1986). Dreyfus and Dreyfus (1986).

A Biologically-based Cognitive View: Churchland (1986), Rumelhart and McClelland (1986), Johnson (1987), Lakoff (1987), Langacker (1987).

The nature of language plays a major role in all these discussions.

Anthropology: Ideas from linguistics have traditionally played a major role in anthropological thinking. Previous generations of anthropologists, inspired by the work of Boas. Sapir, Whorf, and Levi-Strauss. have made important use of ideas from linguistics. That is no less true today. Holland and Quinn (1987) show how contemporary ideas about semantics derived from linguistics and other cognitive sciences affect current thinking about the nature of culture. Turner (1987) and Lakoff (1987) argue that current linguistic research requires a considerable change in our understanding of kinship concepts and, even more important, in our conception of cultural relativism.

Controversies Within Linguistics

Linguistics is anything but a static field. It is rapidly changing and expanding its domain. One of the reasons why it needs to be taught in more universities is that one cannot hope to pick up some all-encompassing basic text that will tell you all you need to know about the field. It needs to be taught by scholars who are keeping up to date on it and who are working actively in it.

Moreover, like any other vital field, linguistics has its share of internal controversy. Because other disciplines depend on results from linguistics, it is important that major controversial positions within linguistics be throroughly discussed and well-understood throughout the academic world. But, regardless of their impact on other disciplines, the controversies within linguistics are interesting in themselves.

Here are some current controversial issues in the field:

—What are the appropriate mathematical foundations for the study of language?

The traditional view of generative linguistics was that the mathematics of recursive function theory and (for many generativists) model theory should be taken as providing formal foundations for the field. This view is currently being challenged both within and outside of linguistics. There are two major challenges from outside linguistics.

Connectionism: Rumelhart and McClelland (1986) have provided a technique for neural modelling that, they suggest, will allow us to account for how the physical brain, which consists largely of networks of neurons, can learn, remember, reason, and process language. Their theory is, however, inconsistent with the generativist claim that recursive function theory and model theory provide the right foundations for linguistics. If the connectionists are right about how cognition is realized in the brain, then the theory of generative linguistics—at present the dominant theory—must be fundamentally mistaken, right down to its theoretical underpinnings. The debate has begun, and it promises to be one of the most important debates in the history of the cognitive sciences. What is at stake for cognitive science is our understanding of the relationship between the mind and the brain. What is at stake for linguistics is the most fundamental conception of what language is and what general linguistic principles are like.

Philosophy: Putnam (1980) has argued that, if recursive function theory is taken as the basis for syntax, then no adequate semantic theory is possible. For a detailed review of the issues, see Lakoff (1987).

Parallel arguments have come from within linguistics, where the adequacy of recursive function theory foundations is being challenged by both cognitivists and functionalists. An elaborate cognitivist alternative to the generative conception of language is offered by Langacker (1987).

In questioning the adequacy of recursive function theory and model theory as formal foundations, cognitivists and functionalists are raising the following kinds of issues:

—What is the role of discourse function in grammar?

—Is semantics truth conditional, or do cognitive approaches better account for semantic phenomena?

—Is semantics independent of pragmatics or is pragmatics just the semantics of speaking?

—Is there a semantic basis for grammatical categories?

—Are there any universals of pure form in syntax, or can all such purported universals be accounted for in semantic or functional terms?

—Are grammatical constructions real linguistic entities, or are they merely epiphenomena that arise from systems of general rules?

—Do linguistic categories show the same prototype and basic-level effects as other cognitive categories, or are they classical categories defined by sets of features?

Different answers to these questions lead to radically different conceptions of language and thought. Part of the excitement of teaching linguistics to undergraduates is conveying to them the nature of the issues and of the evidence that bears on them.

Conclusion

In the great majority of colleges and universities in America, linguistics is barely taught at all, while disciplines that are intellectually dependent on results in linguistics are taught almost universally: philosophy, psychology, anthropology, literature, and artificial intelligence. The understanding of central issues in all those disciplines requires an understanding of linguistics, yet most institutions where those disciplines are taught have no significant offerings in linguistics, and certainly not sufficient offerings to provide students with what they need to know if they are to make sense of the great intellectual issues of the day. As a result, those colleges which do have wide-ranging offerings in linguistics offer significant advantages to students in a wide variety of disciplines.

My experience teaching undergraduates at Berkeley has been that they respond enthusiastically, and with awe and gratitude, to learning about the contributions that linguistics is making to central intellectual issues in their major disciplines. To those who are involved in hiring linguists, I would make a suggestion: Because the foundations of the field are themselves subject to important controversy, it is important to hire faculty who know various sides of the controversies, and who are familiar both with generative and cognitive-functionalist literature. Because graduate programs tend toward one pole or the other, that may well require hiring more than one person. Moreover, in addition to hiring faculty to teach linguistics for its own sake, I recommend strongly that faculty be hired who can also interpret the significance of linguistics for a general intellectual audience.

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LINGUISTICS IN THE UNDERGRADUATE CURRICULUM

APPENDIX 4-G

Linguistics as an Experimental Discipline

by

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PREFACE

The Linguistics in the Undergraduate Curriculum (LUC) project is an effort by the Linguistic Society of America (LSA) to study the state of undergraduate instruction in linguistics in the United States and Canada and to suggest directions for its future development. It was supported by a grant from the National Endowment for the Humanities during the period 1 January 1985-31 December 1987. The project was carried out under the direction of D. Terence Langendoen, Principal Investigator, and Secretary-Treasurer of the LSA. Mary Niebuhr, Executive Assistant at the LSA office in Washington, DC, was responsible for the day-to-day administration of the project with the assistance of Nicole VandenHeuvel and Dana McDaniel.

Project oversight was provided by a Steering Committee that was appointed by the LSA Executive Committee in 1985. Its members were: Judith Aissen (University of California, Santa Cruz), Paul Angelis (Southern Illinois University), Victoria Fromkin (University of California, Los Angeles), Frank Heny, Robert Jeffers (Rutgers University), D. Terence Langendoen (Graduate Center of the City University of New York), Manjari Ohala (San Jose State University), Ellen Prince (University of Pennsylvania), and Arnold Zwicky (The Ohio State University and Stanford University). The Steering Committee, in turn, received help from a Consultant Panel, whose members were: Ed Battistella (University of Alabama, Birmingham), Byron Bender (University of Hawaii, Manoa), Garland Bills (University of New Mexico), Daniel Brink (Arizona State University), Ronald Butters (Duke University), Charles Cairns (Queens College of CUNY), Jean Casagrande (University of Florida), Nancy Dorian (Bryn Mawr College), Sheila Embleton (York University), Francine Frank (State University of New York, Albany), Robert Freidin (Princeton University), Jean Berko-Gleason (Boston University), Wayne Harbert (Cornell University), Alice Harris (Vanderbilt University), Jeffrey Heath, Michael Henderson (University of Kansas), Larry Hutchinson (University of Minnesota, Minneapolis), Ray Jackendoff (Brandeis University), Robert Johnson (Gallaudet College), Braj Kachru (University of Illinois, Urbana), Charles Kreidler (Georgetown University), William Ladusaw (University of California, Santa Cruz), Ilse Lehiste (The Ohio State University), David Lightfoot (University of Maryland), Donna Jo Napoli (Swarthmore College), Ronald Macaulay (Pitzer College), Geoffrey Pullum (University of California, Santa Cruz), Victor Raskin (Purdue University), Sanford Schane (University of California, San Diego), Carlota Smith (University of Texas, Austin), Roger Shuy (Georgetown University), and Jessica Wirth (University of Wisconsin, Milwaukee).

Introduction.

The defining property of a discipline is the body of questions it asks about some aspect of the universe. Linguistics, although relatively young as a distinct discipline (a century or so), has embraced such age-old questions as: how is language represented in the mind?, how is language learned?, how is meaning conveyed by language?, what is the origin of language and speech? The personality of a discipline, however, is determined in part by how it goes about getting answers to its questions. Disciplines are thus commonly characterized as "soft" or "hard" depending on the methods they use to obtain the evidence needed to support or reject the candidate answers (hypotheses) put forth. Literary criticism is a good example of an unabashedly soft discipline; evidence cited for a particular view is seldom so definitive or convincing that reasonable individuals are prevented from offering competing views. Chemistry, on the other hand, merits the reputation of being a hard science because the range of acceptable evidence in support of a particular claim is drawn rather narrowly. Although the history of science tells us that no answers are forever secure, those obtained in the hard disciplines by means of experimental methods tend to have a much longer life-span.

Linguistics is on the verge of becoming an experimental discipline and an undergraduate linguistic major that is tailored to reflect this has the opportunity of:

--attracting a wider range of students to the major
--relating the subject matter of linguistics to the "real" world in a way that makes it more exciting to students
--challenges students to address more deeply problems of philosophy (epistemology) and philosophy of science than they would in disciplines not experiencing a transition in methodology.
--provides students with conceptual knowledge and practical skills which will open up to them a wider range of jobs and/or graduate school options after graduation.

The Essence of Experimentation.

Since there is much controversy over the nature of 'experiments' and even whether linguistics can ever be experimental, I had best define a few terms.

What is essential for experimentation is, first, an attitude and, second, a plan of action based on that attitude. The attitude consists simply of awareness that the world is not necessarily as it may seem, i.e., that our sense-impressions and therefore the opinions and beliefs based on them may be faulty. Given this attitude, one then needs to plan--to contrive--a study of the world in a way which compensates for anticipated sources of error. An experiment is a contrived observation. The contrivance may amount to being in the right place at the right time to make a crucial observation. An example is Eddington's test of Einstein's claim about the bending of the path of light near large masses; he traveled to the Gulf of Guinea when a solar eclipse would occur to see if a given star that should have been hidden behind the sun could actually be seen as its light curved around the sun. More often the experimenter himself contrives the circumstances giving rise to the events that will be observed. An example is Pasteur's famous test of his anthrax vaccine by administering it to one group of sheep exposed to the disease and withholding it from another similar group. Making observations on many similar events compensates for unpredictable individual differences which might hide the object of the search; making similar observations on an experimental (treated) group and on a control (untreated) group are representative of the lore that experimenters in many different fields have accumulated over the centuries. Experimentation, then, amounts to taking as much care as possible to refine one's beliefs. Thus, to counter some common misconceptions: experimentation does not consist exclusively of data-gathering, whether with instruments or not and it is not an activity that ignores theory (or more properly, 'hypothesis') construction. Experimentation, properly viewed, is driven by theory and its results feed back into theory-making in a continuous loop.

Of course, trying to understand the behavior of living systems is more difficult than that of material systems since the former is subject to many more influences than the latter and it is accordingly more difficult to isolate one or a few of these factors while controlling the rest. It is even more difficult to study voluntary behavior such as speech and language which is shaped by a host of physical, psychological, and social influences. Nevertheless, as Claude Bernard, the "father of experimental medicine", remarked:

> Experimentation is undeniably harder in medicine than in any other science; but for that very reason, it was never so necessary, and indeed so indispensable. The more complex the science, the more essential it is, in fact, to establish a good experimental standard, so as to secure comparable facts, free from sources of error. [Bernard 1865 (1957: 2-3)]

Many linguists have come to the same conclusion and have begun the difficult task of trying to 'establish a good experimental standard' in linguistics. These efforts have born fruit; there is now a growing arsenal of experimental techniques of proven value for many kinds of linguistic hypotheses and there is a growing reliance on experimental results to resolve issues in the field. Several leading linguistics departments in North America have experimental linguistics as their major focus or as an important element in their program, e.g., University of Alberta (Edmonton), University of Connecticut, Brown University, Yale University, Ohio State University; excellent opportunities for experimental linguistics are available at the University of Wisconsin, University of Minnesota, University of Pennsylvania, University of Texas at Austin, UCLA, Univ. of California--Berkeley, University of California--San Diego, Cornell, Indiana University, New York University, among others.

What sorts of experiments are done?

Many linguistics experiments do not require expensive equipment (see Appendix A) although computers, various transducers, and other equipment may enlarge the range of experimental techniques permitted as well as make it easier to gather the evidential data faster and in greater volume.

The following examples of experiments done to test hypotheses in various sub-fields in linguistics are only meant to be suggestive of the range of techniques which have been successfully employed and which could be done by undergraduates in a program that had made only a modest investment in equipment. It is not suggested that these specific studies be repeated--although it often has considerable pedagogical value, not to mention scientific value, to replicate experiments previously reported.

A. Phonetics.

The experimental approach to linguistic questions has its longest history and best-established tradition in the domain of phonetics, with substantial but isolated pieces of research on the physical structure of speech sounds being done in the 18th and early 19th century and a self-sustaining tradition developing in the late 19th century (Rousselot 1892, 1897-1901). One of the most important contributions of modern experimental phonetics, armed as it is with instruments for detailed acoustic analysis and synthesis of speech, is the elucidation of the physical cues used by listeners to identify the units of speech (words, syllables, phonemes). This research has yielded sufficient information on the acoustic building blocks of speech that it is now possible to offer commercial systems which synthesize speech from unrestricted text input (of a given language). Details of the listener's task in decoding speech have emerged which would never have been suspected from formally-based speculation or from analysis by the unaided ear. For example, it is now clear that even for so-called "minimal" phonemic differences in language--such that between "pin" and "bin"--there is not just one acoustic cue but multiple cues carrying the distinction. Current interest in this area focusses on how listeners integrate these multiple cues and whether the integration process is driven by purely auditory constraints (the properties of the ear and the neurological apparatus serving it) or whether the listener's prior experience--particularly with the structure of his own native language--plays a part.

Fujimura, Macchi, & Streeter (1978) investigated one aspect of this in an experiment in which artificial intervocalic consonant clusters were created by splicing together taped syllables like 'eb' and 'de' yielding 'ebde'. When the interval between these two syllables is short, listeners tend to hear only one consonant, the second of the two, that is, the joined sequence sounds like 'ede'. However, there was a significant difference in the reactions of Japanese and English listeners to such sequences: the Japanese reported 'ede' in higher proportion than the English listeners presumably because their language permits no medial consonant clusters of this sort whereas English does (e.g., in "rubdown"). In addition to showing that the prior language experience of listeners determines how they integrate multiple cues in speech, this study also sheds light on the mechanisms which gave rise to the sound change whereby word-medial consonant clusters such as that in Latin nocte(m), "night", became Italian notte (Ohala, in press). Specifically, it suggests that the change could occur when a listener, as in the Fujimura et al. study, failed to detect or to rely on the cues for the first of the two consonants and, when repeating the word himself, reproduced it with the two sequential stops replaced by a single long stop.

B. Phonology

If phonetics studies how speech sounds are produced and perceived, phonology studies the behavior or patterning of speech sounds. It seeks answers to its questions in phonetic, psychological, and sociological factors.

Sound Change Studied in the Laboratory.

The study just cited which helps us to understand how a word-medial -ct- cluster could become -tt- (that is, due to listeners' misapprehensions) also illustrates how it is possible now for linguists to study one important form of speech sound behavior, sound change, in the laboratory. This constitutes as significant a breakthrough for linguistics as happened to astronomy when that field learned how to study the behavior of distant objects in the universe via controlled laboratory investigations. Neither has direct access to the object of their study but both can observe and manipulate in their labs the same phenomena (in miniature) which gave rise to the things they are trying to understand. Laboratory studies of sound change have been able to duplicate and obtain some understanding not only of attested sound changes but also of their relative incidence (vis-a-vis other potential sound changes) and their directionality (Ohala 1974, 1983a). These results, moreover, have application in the area of automatic speech recognition (ASR) insofar as it highlights the source of confusions in speech and how listeners try to compensate for them (Ohala 1985, 1986a).

Sound Symbolism.

In general, linguists recognize an arbitrary, purely conventional, connection between meanings and the sound sequences that carry the meanings. Thus the same object may be 'cup' in English, 'tasse' in French, and 'pyala' in Hindi. Nevertheless, there seems to be a small fraction of every language's vocabulary where the constituent sounds convey certain basic meanings in a more direct way and, moreover, showing the same sound-meaning correlation in several unrelated languages. For example, the vowels in 'teeny', 'wee', expressive words meaning "small", crop up in words with the same meaning in other language, e.g., French 'petit', Spanish 'chico', Japanese 'chiisai'. In one of the first psycholinguistic studies focussing on phonological questions, the American linguist Edward Sapir (1929) presented several native speakers of English and a few native speakers of Chinese with pairs of made-up words such as 'meel' and 'mal'--identical except for their vowels--and asked them to assign them as names to smaller and larger versions of objects, e.g., a table. In about 80% of the responses, both from English and Chinese speakers, vowels like 'ee' were chosen for the smaller item, lending support to the notion that there is a universally recognized connection between certain speech sounds and certain fundamental semantic categories. There has been considerable interest in this area recently and many experimental studies have replicated Sapir's findings and have explored other aspects of the phenomenon (Ohala 1984). Besides its inherent theoretical interest, this is an area with potential applications in such diverse areas as advertising (construction of product names) and stylistics, especially the analysis of poetry. A bibliography of experimental studies in sound symbolism is given in Appendix B.

Psycholinguistic Studies in Phonology.

After the vocal tract and the history of languages, perhaps the next great frontier to be explored in linguistics is the language user's mind, that is, what is in mind of the speaker which enables him to exhibit mastery of a language. Although barely out of its infancy--perhaps, 'adolescence' would be apt--studies of psychological mechanisms serving the phonological side of language are growing both in numbers and in the sophistication of the techniques. A relatively accessible method is *concept formation* in which subjects learn to classify presented words (or sentences) into various categories via simple feedback (signalling "right" or "wrong" to each response) (Jaeger 1980, 1986; Jaeger & Ohala 1984; Ohala 1983b). This has been used to test the claim that in English the affricates 'ch' and 'j' (e.g., at the beginning of 'choose' and 'juice') are psychologically single sounds even though physically they consist of stop-plus-fricative sequences (phonetic [ʧ] and [dʒ]). Using the concept formation technique, subjects were taught to classify words into those starting with clusters (e.g., 'stash', 'flow') and those starting with single consonants (e.g., 'thin', 'ship', 'fee')--even though some of these were *spelled* with two consonants. When words beginning with affricates were introduced (and where no feedback was given to subjects' responses), subjects overwhelmingly put them in the category of words starting with single sounds, thus supporting the tested hypothesis. Questions of this sort--and many more complex--arise every time a phonemic analysis is proposed for a language; it is now possible to resolve these issues through experimental means.

Appendix C provides a bibliography of experimental studies primarily in this area.

C. Morphology

Many of the issues in morphology are closely tied up with those in phonology, especially in the case of languages such as English which have a rich inflectional and derivational system, e.g., how do speakers of English compute the phonetic differences in the English plural, e.g., in 'cat[s]', 'dog[z]', 'finch[ə z], as a function of the phonetic ending of the singular form? It is not feasible to go into detail here on the competing hypotheses but one issue concerns whether it is possible to posit just one psychological process for pluralization: a single marker, say [z], which then gets modified by rule as just indicated. Berko (1958) elicited the plurals of made-up words from English speakers (from pre-school age up to adults). (Made-up words were used instead of existing words to circumvent any claim that plural forms were known via rote memorization of all previously-heard plurals.) For her younger subjects she showed pictures of imaginary animals and prompted them as follows: "Here is one wug; now there are two of them. There are two ____" (where the child was encouraged to complete the last sentence). She found that her young subjects performed significantly less accurately with forms such as 'tors' than 'wugs', both of which should have taken the [z] form, thus suggesting that at least in its initial development the process of pluralization may not be unitary. Recent experimental work in morphology still uses such elicitation techniques with success as well as more elaborate methods (Bybee & Pardo 1981; Bybee & Slobin 1982).

D. Syntax; Semantics

The issues that occupy syntax and semantics are quite complex and most have not been subjected to experimental study--even though some of the earliest experimental psycholinguistic studies addressed issues that were topical in syntactic theory of the day (Osgood & Sebeok 1965; Flores d'Arcais & Levelt 1970). Nevertheless, considerable ingenuity--but not necessarily complex procedures or instrumentation--has been shown by workers in this area.

Blumenthal and Boakes (1967), for example, required subjects to memorize sentences of the type 'John is eager to please' and 'John is easy to please', i.e., with similar surface structure but with hypothesized different deep structures ('John' is the logical subject in the first sentence but is the logical object in the second), and then explored the effectiveness of the first noun ('John'in the above example) as a prompt for the recall. They found that "words functioning as logical subjects were significantly more effective prompts than words functioning as logical objects." Since the surface structure was identical in all pairs, the results lent support to the hypothesized difference in deep structure. Further support for such deep structures came from studies of ambiguous sentences, some of which derive their ambiguity from having more than one possible deep structure, e.g. 'they deplored the shooting of the hunters.' MacKay (1966), in a sentence-completion task, found subjects took longer to supply endings to ambiguous partial sentences presented to them than to non-ambiguous ones. This suggests that in hearing or reading one constructs all possible deep structures before arriving at a single interpretation of a sentence.

Other representative examples of experiments in this area include Sachs (1967), Jarvella (1971), Baker, Prideaux, & Derwing (1973), Berlin & Kay (1969), Carden & Dieterich (1981); reviews are given by Slobin (1979), Glucksberg & Danks (1975), and Prideaux (1985).

E. "Hyphenated" Linguistics.

Experimentation in some of the newer sub-areas of linguistics is characterized by impressive creativity. In a classic experiment, Labov (1966) demonstrated the existence in New York City of dialectal differences determined by social class, specifically the retention or dropping of 'r' after vowels. Entering three department stores catering to different social classes, he and his assistants asked the clerks for the location of some department that had previously been determined to be on the fourth floor. The responses of the clerks ('fawr$^{\theta}$ flawr' or 'faw$^{\theta}$ flaw') showed progressively higher percent of r-retention as one went from the working class store to the one catering to the highest class customers. Further experimental studies in sociolinguistics may be found in Labov (1972a,b). For other areas of hyphenated linguistics, see Read (1971) and Locke (1983) for language acquisition, Caplan (1987) for neurolinguistics, Ehri (1984, 1987) for reading and spelling acquisition.

F. Summary of Experimental Areas.

In the preceding survey I have emphasized the kind of experiments where the experimenter contrives the situation under which observations are made; there is also the potential for the other type of experiment: nature's experiment, as it were, where the observer just has to arrange to be in the right place at the right time to make the observation. Large collections of naturally-produced speech errors, for example, have provided crucial evidence relevant to issues in many domains in linguistics (Fromkin 1973, 1980; Stemberger 1983; Shattuck-Hufnagel 1986). Baars & Motley (1976) have developed ways of eliciting speech errors in the laboratory. Using them they have demonstrated, for example, that some sort of lexical editor must play a role in speech production since subjects--given equal opportunities to spoonerize words where the rearrangement would produce existing words and where they would produce nonsense (e.g., "barn doors" when spoonerized would yield the existing words "darn bores", whereas "dart board" if treated similarly would only yield the nonsense sequence "bart doard")--spoonerized the first type significantly more often (Baars, Motley, & MacKay 1975).

Appendix D provides a list of selected works that could serve as texts in courses of various kinds dealing with experimental linguistics.

Pedagogical Advantages of an Experimental Approach to Linguistic Issues.

Linguistics is noted for instilling in students a capacity for what is known as 'critical thinking'. This is doubly the case with experimental linguistics. As is common to all linguistic work students must examine data in detail to determine what generalizations they can draw from them but with an experimental approach they must in addition conceive of ways of testing those generalizations--devise ways to obtain new data which would successfully differentiate between competing generalizations.

The experimental approach is not universally endorsed among linguists (nor was it endorsed by all practitioners of medicine and physiology in the mid-19th century; see Helmholtz 1877 [1971]--such may be a natural feature of disciplines undergoing changes in methodology). Some have argued that linguistics cannot be an experimental discipline, cannot achieve the level of prediction of the "hard" sciences, and that it deals with propositions that are inherently untestable (Itkonen 1978; Lass 1980; for an opposing view see Ohala 1986b, 1987a,b; Ohala & Jaeger 1986). Students who approach linguistics experimentally will have to face these issues and also question very deeply their own and others' assumptions about such fundamental philosophical notions as what it means to 'know' something, the relative merits of knowledge derived from sense data vs. reason--or both-, what 'certainty' means, and even how well language or mathematics do at representing the world. They will have to delve into the history of linguistics and--in an enlightened curriculum--the history of other sciences, e.g, physics, chemistry, geology, biology. In this way a properly designed undergraduate major in linguistics with an experimental emphasis could provide a truly outstanding "liberal" education, covering hard and soft sciences as well as history and philosophy while at the same time involving students directly in reshaping linguistic science. (See Appendix E for a selected bibliography on history and philosophy of science.)

It is inevitable when learning about the experimental techniques suitable for the testing of linguistic hypotheses that students will learn about concepts and methods in other disciplines, e.g., psychology, computer science, statistics, mathematics, and--insofar as they give instructive examples of the success of experimentation--the history and practice of 'hard' sciences such as physics, chemistry, and biology. This feature of experimental linguistics in an undergraduate curriculum may also allow it to attract a wide range of students--in terms of background and temperament.

Students' familiarity with experimental methods will make them eligible for a wider range of jobs and a wider range of disciplines for further, advanced study. Undergraduates are currently obtaining entry-level jobs in the speech and language technology industry. Linguistics undergraduate students with such training are also highly successful in gaining admission to programs of advanced study in library science, speech pathology, and pre-medical training, and, of course, linguistics itself (in addition to areas where experimental training is of less value, e.g., law, business administration, modern languages).

Necessary Resources.

Although it is possible to do some form of experimental linguistics on a very modest budget and with little outlay for equipment, it is far easier and imposes fewer limitations on the type of experiments that can be undertaken if there are adequate resources.

The following would be desirable:

Tape recorders plus associated equipment: earphones, amplifiers, loudspeakers, tape splicing equipment.

Sound-treated room (for recording).

Micro-computer system for digitizing, viewing, editing, analysis, and synthesis of speech and other audio signals; programs for obtaining reaction times, tabulating subjects' responses, performing statistical analyses.

In addition, a supply of motivated subjects is desirable, where motivation is typically provided by giving students academic credit for their participation or by paying them. In many cases, however, linguistics students themselves are not suitable as subjects in linguistics experiments because they might easily figure out the hypothesis being tested and come to the task with certain biases.

Some of these facilities may already be in place in other departments, e.g., psychology, speech and hearing science. In general, there would be considerable advantage to involving faculty from other departments in the implementation of a curriculum featuring experimental linguistics.

Library Resources.

In addition to the usual journals covering theoretical and descriptive linguistics, a program in experimental linguistics should ideally augment their holdings to include the journals listed in Appendix F.

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Journal Abbreviations Used Appendices:

BLS	Proc., Annual Meeting, Berkeley Linguistics Society
CLS	Proc, Regional Meeting, Chicago Linguistic Society
JASA	Journal of the Acoustical Society of America
JSHR	Journal of Speech and Hearing Research
JVLVB	Journal of Verbal Learning & Verbal Behavior
Lg	Language
Lg & Sp	Language & Speech

APPENDIX A: BIBLIOGRAPHY OF EXPERIMENTS WHICH CAN BE REPLICATED USING LITTLE MORE EQUIPMENT THAN A TAPE RECORDER*

(*The extra equipment includes: additional tape recorders, splicing equipment, a source of noise--which may be on a tape--, response buttons, earphones, etc.)

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APPENDIX B: EXPERIMENTAL WORKS ON SOUND SYMBOLISM

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APPENDIX C: WORKS IN EXPERIMENTAL PHONOLOGY

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IRAL (Int'l Rev. of Applied Ling.)
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Journal de Psychologie Normale et Pathologique (Formerly, J. de Psychologie)
J. Experimental Psychology
J. of the International Phonetic Association
J. of Phonetics
J. of Psycholinguistic Research
J. of Speech & Hearing Disorders
J. of Speech & Hearing Research
J. of Verbal Learning & Verbal Behavior; now: Language & Memory.
Language Learning
Language & Speech
Perception & Psychophysics
Phonetica
Phonology Yearbook
Psychological Reviews
Speech Analysis
Studia Phonologica (Kyoto)
TESOL Quarterly
Zeitschrift fur Phonetik und Sprachwissenschaft...

APPENDIX 4-H

Linguistics, Cognitive Science and Liberal Education

by

Frank Heny

The views expressed are those of the authors and do not necessarily reflect the position of the LSA or the National Endowment for the Humanities.

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PREFACE

The Linguistics in the Undergraduate Curriculum (LUC) project is an effort by the Linguistic Society of America (LSA) to study the state of undergraduate instruction in linguistics in the United States and Canada and to suggest directions for its future development. It was supported by a grant from the National Endowment for the Humanities during the period 1 January 1985-31 December 1987. The project was carried out under the direction of D. Terence Langendoen, Principal Investigator, and Secretary-Treasurer of the LSA. Mary Niebuhr, Executive Assistant at the LSA office in Washington, DC, was responsible for the day-to-day administration of the project with the assistance of Nicole VandenHeuvel and Dana McDaniel.

Project oversight was provided by a Steering Committee that was appointed by the LSA Executive Committee in 1985. Its members were: Judith Aissen (University of California, Santa Cruz), Paul Angelis (Southern Illinois University), Victoria Fromkin (University of California, Los Angeles), Frank Heny, Robert Jeffers (Rutgers University), D. Terence Langendoen (Graduate Center of the City University of New York), Manjari Ohala (San Jose State University), Ellen Prince (University of Pennsylvania), and Arnold Zwicky (The Ohio State University and Stanford University). The Steering Committee, in turn, received help from a Consultant Panel, whose members were: Ed Battistella (University of Alabama, Birmingham), Byron Bender (University of Hawaii, Manoa), Garland Bills (University of New Mexico), Daniel Brink (Arizona State University), Ronald Butters (Duke University), Charles Cairns (Queens College of CUNY), Jean Casagrande (University of Florida), Nancy Dorian (Bryn Mawr College), Sheila Embleton (York University), Francine Frank (State University of New York, Albany), Robert Freidin (Princeton University), Jean Berko-Gleason (Boston University), Wayne Harbert (Cornell University), Alice Harris (Vanderbilt University), Jeffrey Heath, Michael Henderson (University of Kansas), Larry Hutchinson (University of Minnesota, Minneapolis), Ray Jackendoff (Brandeis University), Robert Johnson (Gallaudet College), Braj Kachru (University of Illinois, Urbana), Charles Kreidler (Georgetown University), William Ladusaw (University of California, Santa Cruz), Ilse Lehiste (The Ohio State University), David Lightfoot (University of Maryland), Donna Jo Napoli (Swarthmore College), Ronald Macaulay (Pitzer College), Geoffrey Pullum (University of California, Santa Cruz), Victor Raskin (Purdue University), Sanford Schane (University of California, San Diego), Carlota Smith (University of Texas, Austin), Roger Shuy (Georgetown University), and Jessica Wirth (University of Wisconsin, Milwaukee).

Introduction: Contemporary Education

Linguists have not done very much professional wondering about education. Until quite recently most would have claimed that the field had little to offer at the undergraduate level, and I have no doubt that there are many of us in linguistics who still have a sneaking feeling that the **real** linguist does research, and to the extent necessary teaches graduates, and has little worthwhile to say to undergraduates, useful as they are to have around in order to justify FTEs. I want to try and help you see that we really do have a great deal to offer undergraduates. In return, I am sure that if we take undergraduate education seriously then this will benefit linguistics -- but I should be honest: it is undergraduates rather than linguists whose interests concern me most deeply. Look at it any way you will, we need an effective way of educating college graduates more urgently than we need the results of linguistic research.

I am going to spend a lot of this paper dealing with general goals, and very little time on practicalities. This will be necessary if we are to appreciate the context in which we as linguists (more generally as cognitive scientists) can now contribute to contemporary education.

The American ideal, from the outset, demanded that the colleges of this country prepare all those who passed through them for full participation in democracy. In a society supposedly committed to equal opportunity, it is the colleges above all that must be held responsible for passing on the traditions and values of society to those who might not otherwise acquire them. College prepares the young adults for life, not merely by providing vocational training to the leaders of society, but by engaging the students in all manner of activities which can make them more effective members of a democratic society. On the whole, the American colleges have done an admirable job, over the centuries, preparing generation after generation to live effectively in a changing and often turbulent world. There is, in other words, a tradition of liberal education in the country. Admittedly, until relatively recently, access to a college education was not really open to the masses, but the concern has been there, the ideals, the education itself, for those who made it through that far, and with the vast expansion of higher education in recent years the educational system is trying very hard to translate high ideals into a practical education that is at least a little more than just advanced vocational training.

It is rather generally admitted that the system is not succeeding too well. There are many reasons. Perhaps the most serious, and certainly the least commonly recognized, is the fact that those who are generally assumed to be most responsible for passing on what we have inherited from the past are remarkably ill-equipped to understand the nature of that which they must pass on. For, by and large, the professional educators in our society have been trained in such a way that they are cut off from much of what is most vital in our culture. They, and we, more often than not fail even to recognize as a part of our culture aspects of our heritage which lie quite near the core. "Culture" is the business of those who look back, or those who create within some artistic medium. With little more than a passing thought, we simply take for granted that it is our colleagues in the "humanities" who are the guardians of our heritage: the historians, the philosophers, the literary scholars, the curators of museums, contemporary artists, musicians, writers. These are the ones whose professional concern it is to pass on the baton. Other scholars may be called in from time to time for a little assistance. Scientists, particularly social scientists, are expected to lend a hand in broadening the base of education but the true educators are those humanists who are steeped in the past, concerned directly with philosophical, especially moral, debate or engaged in artistic creation of some kind.

It would be pointless to deny the importance of the traditional humanities in a liberal education. I have no intention of doing that. The importance of the accepted subject areas goes without saying. My point is simply that the humanities in this limited sense constitute only a small fragment of the culture which we have inherited: there is a vast, challenging, and highly relevant part of that culture whose humanistic significance goes unrecognized and whose educational resources remain virtually untapped. The heart of our culture today is science. It is the scientific world-view that molds every aspect of our lives. Like it or not, scientific ways of thought lie at the heart of every thing we do every moment of the day. Ignore that if we will, we can't escape it. And since it is this scientific world-view that now dominates our civilization, we cannot consistently ignore it in our attempts to provide a liberal education to the young. Indeed, it is scientific education (in a special sense) that must now form the core of a liberal education! What I mean by this will form the main topic of this talk.

The goals of education are clear: to deepen our understanding of the nature of humankind and of the human condition. During the last half century or so, fundamental changes have occurred, above all in how we relate the human species to the rest of the universe of which it is a part. These changes in our perception have come about through developments in science -- in particular through the creation of those sciences which concern themselves specifically with the core properties of the human species: the cognitive sciences. They affect humanity. And should certainly have affected the humanities. Yet the humanities, as we tend to think of them, are concerned with only a small part of what it means to be human, and even the best liberal education today is in danger of focusing on ways of thinking about human nature which ignores science as irrelevant -- to the great impoverishment of contemporary education. A liberal education can no longer be founded solely upon the traditional humanities. Anyone who thinks it can is myopic -- and likely as not to be a professional educator: one may search in vain for serious attempts to incorporate the relevant scientific knowledge and methodology into the central core of American liberal education.

People worry, of course, about the supposed conflict, or gulf, between the sciences and the humanities. But the mere fact that the problem is often stated in those terms indicates a failure to come to grips with the real issues. Concern is wasted on a pseudo-problem. In a world of increasing specialization and complexity there is inevitably tension between a commitment to the ideals of a liberal education and the need for young people to specialize, in preparation for their future careers; and this tension is often seen as a conflict between the Humanities and the Sciences. There is, of course, some reason for this: nowhere is specialization so essential as in the hard sciences and their technological cousins, so students majoring in science and technology will tend to have less time for general education. In addition, they will obviously tend to do less work in the humanities than their counterparts majoring in languages, philosophy and so on, while students whose majors lie in the humanities will necessarily tend to understand less of the scientific viewpoint than will the science majors.

What I am worried about is not this natural and largely inevitable difference in emphasis, but a different, and potentially very serious, problem affecting **all** our undergraduates, including the science majors. College students graduating today -- again including the science majors -- are effectively insulated by the nature of their educational experience from a large part of their cultural heritage. Our civilization rests on science; the ways of thought that we have inherited from the past are in large measure **scientific**; our legacy from the past includes, crucially, the legacy of science. If we are to maintain, and where appropriate develop, a coherent system of values that is consistent with our heritage and our culture, then the central role of science **in that culture** must be recognized. Such recognition has yet to come.

It means far more than just including science courses among distributional requirements or in a "Core Curriculum". It has nothing at all to do with the highly specialized, vocational courses required of science majors. It is not a matter of teaching students about "Great Ideas" from the history of science. It is not even a question of requiring that students take courses in the Philosophy of Science. The accumulated wisdom of the past is not -- most certainly not in the case of science -- a fossilized tradition to be distilled only from museums or from writings from or about the past. It lives in the present. Musical performance, creative writing and courses in studio art are all accepted as a perfectly normal part of a liberal education; surely "doing" science should be, too. At the very core of our self-awareness as humans and members of human society lie, often unrecognized, essentially scientific ways of thought. These ways, like other, more obviously "humanistic" strands, have been with us since at least the city-states of Greece, and are as fundamentally a part of our "culture" as are the moral, legal, and artistic legacy which we similarly inherit from the past. They have simply attained, especially over the past few decades, an overwhelming importance -- which has nevertheless scarcely begun to affect the essential structure of contemporary education.

There are historical reasons for this. Two are especially noteworthy. First, we have, as a society, given scientists little incentive to develop the educational potential of their disciplines. The natural sciences have obviously offered society great material benefits and the material success of their graduates has consequently often depended directly on the degree to which those graduates have managed to specialize from an early age. Thus there has been much pressure on science teachers to engage in what is essentially vocational teaching. Let's face it, a high degree of specialization is necessary in the sciences not merely in order to gain material reward: to advance scientific knowledge, specialization is essential and inevitable. Hence, science students and teachers have had every reason to concentrate on their immediate areas of specialization and not on the broader educational significance of their work. (Clearly this has been true, in part, of linguists during the last three decades.)

The second historical factor tending to reduce the impact of scientific thinking on liberal education is the gap in scientific knowledge which existed, until recently, precisely where one might hope to establish relationships with the humanities: no science has focused appropriately on human nature itself. Psychology, which would have been the natural candidate to provide such links, was, at least in this country, almost entirely behavioristic and anti-theoretical, congenial neither to the natural sciences nor to traditional humanism. Thus, the links between scientific thought and humanism (concerned as it is with human nature, and the place of humankind in the universe) have not been immediately obvious.

Two quite independent factors have therefore inhibited the development of an approach to liberal education in which scientific thought was given a central role: there are incentives that tend to induce specialization in the sciences, and the distance between scientific research and questions of human nature have until recently been considerable.

As linguists we work in one of a group of sciences which may well hold the key to both problems: effectively employed, the cognitive sciences could help us find our way to new curricula for liberal education in which natural science played an essential role. They have a number of properties that lead me to say this, three of which are especially significant. First, they have numerous deep ties both with the natural sciences and with the traditional humanities. Second, they are young enough to be more easily influenced to play an important educational role than are the older, more established sciences, some at least being currently rather less easily marketable than the older, "natural" sciences. Finally, precisely because of their relative youth, they demand significantly less specialization and hence are far more easily accessible to undergraduates than are the older sciences. Within the cognitive sciences I believe linguistics holds a special place. For reasons that have to do both with subject matter and with the nature of the theoretical framework, it could play a pivotal role in making possible a curriculum in which the cognitive sciences linked the traditional humanities to the natural sciences.

The Cognitive Sciences in Education

Whatever else it may be expected to do, a liberal education is supposed to contribute to the development, in each individual, of her or his full potential as a human being. One might agree that a deep understanding of the scientific outlook is an essential part of what constitutes an "educated person" today, one of the prerequisites for living successfully in the modern world. That could be considered sufficient reason for including serious scientific training in every college education. However, there has always been an element of self-reflectiveness in liberal education, and not without reason: the students are to be helped to a deeper self-awareness. From this point of view there is no doubt that an examination of **human nature** lies at the center of a liberal education, and one perfectly good reason why the sciences have played so subservient a role in education is that until very recently they were scarcely able to contribute anything directly to our conception of human nature itself. Human nature itself was simply not subject to scientific study. Over the centuries, the sciences have chipped away at our anthropocentric view of the universe, dismantling it piece by piece, and in this way have deeply affected our view of humankind -- but in a largely negative, oblique fashion.

This is where we, along with our colleagues in the other cognitive sciences, come in. Each of these sciences focuses on some aspect of the mental make-up of the human being. Thus it is that they have begun to provide precisely what was missing before: a scientific approach to human nature itself. They differ greatly in the way in which (and degree to which) they apply scientific theory-building to their subject matter. Artificial intelligence, for example, as most of us are rather acutely aware, is far more frequently engaged, today, in solving engineering problems than in attempting to construct general theories. Neurology is a branch of medicine and, as might be expected, is primarily engaged in empirically based problem solving rather than in fundamental theoretical research. (Also, unlike the other cognitive sciences it deals directly with traditional, obviously physical subject matter: the structure of the **brain,** rather than that of the **mind.**) Linguistics, on the other hand, employs quite sophisticated theories, constructing and testing these in a more or less standard fashion to develop a general account of the human language faculty -- even though it scarcely deals at all with the traditional, physical subject matter of natural science.

Whatever the differences between us, though, we are all members of a small community of scientists whose focus of interest is central to human nature -- the mind. The cognitive sciences form a series of natural bridges between the traditionally recognized sciences and the traditional humanities. They will obviously have to play a significant role in any coherent curriculum for a liberal education during the last two decades of this century. Within that general context, I see a special place for linguistics because of the fact that we, as linguists, have available a theoretical framework which is far more sophisticated than that of any other cognitive science, probably as a result of the fact that we deal with an aspect of the mind which yields, as its tangible expression, a more highly articulated, well-defined system than any other: language. Because of this, and because language in turn is so deeply involved in all other aspects of education, we could provide leadership, spear-heading significant changes in the undergraduate curriculum -- a role which I am appealing to you today to assume. Imaginatively conceived courses on language and linguistic theory could initiate and sustain the necessary changes in our conception of what is "normal" in a liberal education.

Linguistics as a Cognitive Science

Most academics have heard something of the revolution in linguistics that occurred in the 1950s, inspired by the work of Noam Chomsky, but virtually no-one outside the field has any clear grasp of what has happened since then: the decade of reasonable but disappointingly slow and uneven progress up to the late sixties; then the ten years of doldrums; and then, very recently, the second revolution under Chomsky's influence -- which I believe to be far more significant than the first -- certainly in its practical implications. The role I am suggesting for linguistics in education is immediately dependent on these recent developments -- though it obviously has its roots in the long tradition of systematic work on language that goes back at least two hundred years. In the rest of this section I will give a very brief account of how I see the field today in so far as recent history affects its potential contribution to education. In doing this I will assume a naive reader, in the hope that to do so may help others think about how to communicate with other academics about what linguists could offer them. I shall adopt my own point of view -- which may well not be shared by all my readers..

The essential premise under which cognitive linguistics has been operating since the fifties is, I believe, this: important aspects of language structure are determined by the structure of the human mind, and in particular those features of mental structure which permit and control the development of language in the normal child. It has become increasingly clear that a child learning a language does so not by imitating, blindly, all that it is exposed to, but by making active use of a highly complex framework which both facilitates language learning and (in doing so) determines what kinds of languages are learned. The structure of the human mind limits, very significantly, the set of possible human languages: only those constructed in conformity with the relevant structural properties of the mind will be developed by a child in the normal course of events. To the extent that linguistic analysis is now beginning to isolate just those central properties of language which result from mental structure in this way, it yields important insights into aspects of that structure. That is, in fact, the central goal of contemporary linguistic theory.

The first twenty years of this research program was dominated by a particular hypothesis about the nature of the central properties of language. That hypothesis was, inevitably, found seriously inadequate. There is nothing unexpected or undesirable in the fact that linguistic theory has undergone radical change in this way. The change was not simply a matter of fashion, or a swing of the pendulum. It was a natural and positive development. As often happens in a science, the then current theory was replaced by a more adequate framework. The change was quite fundamental. Our conception of what constitutes a language, and our account of how a language develops in the child were both totally changed.

Human languages were represented, in the fifties, sixties, and indeed much of the seventies, like computer languages, as an infinite set of sentences which had certain rather easily defined structural properties. The rules defining the sentences of a given language embodied these interesting structural properties. These rules formed the **grammar** of that language. And the child learning the language had to "discover" that grammar, building up the rules bit by bit on the basis of the data provided by the language it heard -- much as a linguist would do, faced with the task of analyzing it without the benefit of prior descriptions.

The mental structures the child would bring to this task were represented, essentially, as simply principles of grammar construction. The child would unconsciously "expect" to have to analyze its language in terms of constructs like **noun** and **verb**, and certain structural relations between these constructs. In other words, its unconscious "hypotheses" about the structure of its language would have to be formulated using the basic inventory of terms available to it, like **noun** and **verb**, and would also be limited to the permitted structural relations between these basic items. Most important of all, it would "expect", in this same sense, to find certain complex structural relations ("transformational" relations) between sentences. In English the transformational relations the child would find would include the structural relationship between an active sentence, Jane saw Bill and its passive counterpart, Bill was seen by Jane, or that between a statement and its questioned counterpart (Did Jane see Bill? and Was Bill seen by Jane? respectively for these two examples.) The fact that such relationships hold between English sentences, and are "expected" to do so would simplify language learning since the child would not need to discover the basic categories and relations needed to correctly represent these aspects of the structure of the language. Those categories and relations were supposed, instead, to be innate. This explained, it was felt, how it came about that the human child learns language so naturally, fast and well. The "expectations" of the child in this account are nothing more than a fund of analytical categories, including rule-types, which yield appropriate grammars for languages of the kind that human beings learn and use, and which, being innately available to the human infant, determine the kinds of structures that languages exhibit.

The most obvious, and in many ways most serious, problem with this account of language structure was that the "transformational" model could be extended only with difficulty to languages other than English. Even when it was extended, each language was inevitably viewed as a separate, isolated phenomenon. (I think it is important to emphasize this, since the chances are that if a non-linguist knows anything about the field she or he has had some exposure to the standard transformational grammar of the sixties -- which had little to say about language in general.) If transformational relationships really formed one of the fundamental building blocks of human language, the positing of such relationships should have yielded insight into the nature of language variation, into language learning and presumably also into language processing. But this was not happening. Few other languages, for example, exhibit a structural relationship between active and passive sentences which can be easily compared in its entirety to that holding between English active-passive pairs; even fewer form questions in anything like the English way. Far from shedding light on structural similarities and differences between languages and hence leading to an understanding of how a child could learn **any** language, this model treated each language as an isolated object, which the child had to learn piecemeal, coming equipped only with the basic tools for grammar construction. Although it was a significant advance on the ideas of the structuralists, transformational grammar, as a theory of language development, still left the child with far too much to do! To account for how language actually develops, a far richer model of acquisition was needed: it was necessary to suppose that the child comes equipped with -- and uses -- other, more powerful tools.

The change in perspective came in the mid to late seventies. Language learning began to be seen not as the discovery, by each child, for each language, of an independent set of rules or grammar for that language, but as a process in which the child unconsciously selects, on the basis of the language data around it, from among a relatively small number of alternatives, innately determined and available to every child. Individual words obviously have to be learned but they are learned by a process which involves fitting them into a more or less universal language structure which permits only very limited variation, and constrains even that variation to occur only along a relatively small number of parameters. The possibilities for variation are very highly constrained -- far more so, it turns out, than is suggested by the degree of superficial variation between languages. Much of that variation can now very plausibly be reduced to the **interaction of a small number of specific, abstract parameters along which languages, or sub-parts of languages can vary.** The parameters, the points at which languages can vary significantly, are available to every infant, being part of our inheritance as members of the human species -- either as a direct result of the human genotype or as a result of the interaction of this with constant factors in the environment.

Each child, in fitting the sounds which it encounters into the universally available framework, simply has to determine how the parameters must be set in order to analyze what it hears as a well-formed human language. Thus, what is important about an individual language is not the details of the grammar of that individual language, but the innately available parameters along which variation is possible. Given a language faculty constructed in something like this fashion, the human infant does not so much **learn** a language by forming and testing hypotheses; rather, it simply **develops** the language by setting a number of internal "switches" on the basis of the language data to which it is exposed. At each point where significant variation can occur, the child adopts that setting of a switch which, along with the settings for all the others, most easily permits the language data so far encountered to be structured into a maximally coherent system that is compatible with the framework as a whole. The values set at crucial points in structure have wide-ranging implications, interacting to yield the variation that can occur between actual languages.

And it is the invariant principles together with these "soft spots" -- the parameters along which variation is possible -- which constitute, according to this way of looking at language, a part of the core make-up of human beings: the equipment which enables us to develop language. It is these which make language so natural and inevitable a part of each individual human. It is these which define, in large measure, what it means to be an articulate mammal (with apologies to Jean Aitchison!)

Cognitive Linguistics in the Undergraduate Curriculum

With that as background, I can go on and, I think reasonably persuasively, show how linguistics can now play a pivotal role in the development of contemporary education -- a role which it could not play even a few years ago. During the sixties and seventies, linguists were indeed very wary of making any claims at all for the practical relevance of the field. Far more than non-linguists, they were aware of the very preliminary and limited nature of the theory they were using. It was not transformational linguists but English teachers and other potential users of linguistics who sometimes made exaggerated claims for the field. Chomsky's often quoted cautious remark in 1966 was typical of our (in retrospect quite appropriate) response to overtures from would-be consumers: "I am, frankly, rather skeptical about the significance for the teaching of languages of such insights and understanding as have been attained in linguistics and psychology." (in Mark Lester, ed. Readings in Applied Transformational Grammar New York 1970, p. 54).

The recent developments in the field, sketched above, have totally altered the appropriateness of such a response to a similar question today. We can approach the problems of education confident of being able, at the very least, to assure our colleagues that results in the field, however tentative, **do** have significance for the teaching of languages. Our knowledge of how those languages relate to each other is different in kind from what it was in 1966, and even if it should turn out that that knowledge has little beyond descriptive validity, that alone is a very significant advance.

Whether the attempts that are now being made to develop research into aspects of second language acquisition within the new framework will lead to practical results remains to be seen. Personally I am cautiously optimistic. Theoretically driven research into first and second language acquisition is suddenly very promising. It could significantly change current approaches to language teaching and testing. Already, the pedagogical issues and the questions relating to the evaluation of language "competence" raised by such research are of considerable practical significance, whatever the ultimate level of success in applying the theory may be.

Even without such issues, which should be beginning to receive an airing in education and language departments throughout the country, the new model of language provides a real descriptive basis for fruitful interaction with -- and among --language departments, essentially for the first time. It could enable teachers and students of highly dissimilar languages to discover common ground and greatly enrich what is for many students a pretty sterile part of the curriculum: foreign language learning. Linguistic research now attempts to investigate not merely the structural relationships between the common European languages, but the properties that these languages have in common with Chinese, Japanese, Korean, the Bantu and other African languages, Finnish, the native American languages, Australian languages and so on. This alone is a highly important fact known to very few people indeed outside the field. Most outsiders still think of linguistics in terms of transformational grammar in the sense of **Aspects.** I don't need to tell **you** about the changes -- but we need to tell **them** -- because they simply do not know about them. To our non-linguist friends who have some acquaintance with our field, it is a highly complex, very formal successor to high school English. Such impressions will have to change. As we change them we will find that we are able to provide a focus for attempts to put language teaching on a new footing -- whether or not that change can be based in part on the new theory-directed research into second language development.

Clearly it is not enough to argue that linguistics can now contribute significantly to the foundations of language teaching: alone, that cannot justify giving the field a place somewhere near the core of general education. Yet I believe there are good grounds for basing our case in the first instance on the way in which we can interact effectively with the traditional humanities, including modern language departments.

Linguistics, as it is now constituted, could very naturally extend its academic ties far beyond the traditional circle of anthropology, English and philosophy, allowing us to establish really meaningful relationships between fields as apparently disparate as the foreign and native languages, psychology, philosophy, computer science and, through evolutionary theory and ethology with biology and back again full circle with anthropology, enriching that field on a new level. Interestingly, meaningful contacts between such disciplines can be most easily established through a commitment to the development of the liberal arts curriculum.

Consider our status relative to biology. The ultimate theoretical underpinning of contemporary linguistic theory is the hypothesis that language development is driven by a species specific, innately determined property. Many questions suggest themselves in regard to the **evolution** of these human properties, and the relationship between innately determined aspects of language structure and innately determined animal behavior. Recent post-Darwinian developments in evolutionary theory provide a framework congenial to questions about the evolution of complex behavioral patterns like those involved in language. Many extremely interesting and important questions about the nature of humankind can be posed, and although actual scientific results may not be obtainable for many years, inter-disciplinary teaching in these areas at the undergraduate level could be exciting and (to students and faculty alike) profitable. Thus, at least on the undergraduate level, where questions like those I have just referred to are worth raising for their own sake, our links with evolutionary theorists are not fanciful.

Of course it is within the cognitive sciences that linguistics might be expected, a priori, to develop the closest ties. Recent advances in the understanding of vision, of conceptual structure, of reasoning, and of the structure and functioning of the brain itself, have much to tell us about the human species, much to tell us that could be linked systematically to linguistic results -- at least in the context of a liberal arts education. We all know, of course, that for many reasons the ties between our field and the other cognitive sciences are in practice rather limited at the present time. Yet, as I have already implied, it seems quite likely that through a shared commitment to finding new approaches to education we will not find it hard to uncover much common ground with other cognitive scientists. The experience at Hampshire College, where linguistics is explicitly included in cognitive science, and flourishes, provides concrete evidence of how stimulating such an arrangement can be -- and mutually beneficial to linguistics, the other sciences, and the students.

If the recent advances in linguistics were of significance only to the extent that they built bridges between the natural and cognitive sciences and between these and the traditional humanities this would be reason enough to encourage more widespread introduction of the subject into the undergraduate curriculum. But there is also the subject matter -- and the methodology. The object of study is the human language faculty and the methodology is scientific. It is the potential inherent in this last point that to me is crucial. Linguistics courses can be effectively designed to teach scientific methodology to students with no background in science. It may be this above all which justifies giving the field a central position not only within the cognitive sciences but within the scientific component of a liberal education.

Courses designed to teach scientific method through linguistics are not simply abstract treatments of language structure. They begin with an examination of sentences in the students' own language and, taking these sentences as data, construct precise models of the language. The model is ultimately extended to cover variants of the language and to relate it structurally to other languages, including some that are superficially quite dissimilar from it. Questions of learnability can be made relevant: the analysis of language structure must be such as to yield a plausible account of what a child is engaged in when she or he is developing a native language. The reasoning is demanding. Precise deductions are made from rigorously formulated general hypotheses, and these are tested against facts drawn from the students' own language. The students start doing "real science" from the outset, and if they proceed beyond the basic course can quite rapidly approach current research questions, tackling carefully selected "cutting edge" literature after only a single course.

Despite the rigor of the reasoning, no background in mathematics as such is required, and linguistics demands neither apparatus nor laboratories -- nor the acquisition of those practical skills required to undertake laboratory research. Students with relatively little aptitude for formal work or abstract reasoning obviously find such courses difficult, but they don't need to find them overwhelmingly so, and it is clear that many who would not be able to succeed in the kind of mathematics that is an essential prerequisite to serious work in most sciences can nevertheless follow, and indeed engage in such reasoning sufficiently well to profit from the attempt. On the level that is relevant to their development as educated human beings, they have practised scientific reasoning.

At the same time, they have been forced to consider their own language objectively, and have been freed, at least in some measure, from the highly subjective viewpoint from which they tend to consider all issues related to their own nature as human beings: they have viewed themselves as a part of nature. Since one's own language is so deeply felt as an expression of self, the experience of examining it objectively in this way has considerable educational value in and of itself.

Science majors taking linguistics courses often seem to benefit as much as any others since they discover (with some surprise) that it is possible to think in an essentially scientific manner about subject matter well beyond the confines of their own area of specialization -- and on issues concerning their own human identity. Moreover, in the course of their often very narrow, vocational, scientific training they seldom have the need (or ability) to tackle broader, philosophical issues of the sort that it is still quite easy in linguistics to bring up and to relate in detail to specific data. Far more than in any of the traditional sciences, and more even than in the other cognitive sciences, we can raise, as a normal part of teaching linguistics, questions about the subject matter and methodology of science and the nature of explanation, and similar, often quite deep philosophical questions.

Interestingly, the application of methods of rigorous argumentation to language may well have some very practical benefits, too. Traditionally Latin, and more recently various forms of logic and parts of mathematics, have been considered educationally beneficial, at least by some, not on account of their subject matter but because they force the students to engage in disciplined thinking, "habits" which might hopefully carry over to other areas. Careful, rigorous study of language structure forces us to think about our language. Not only does this confront the student immediately with a strikingly new, often disconcerting way of examining, objectively, phenomena which have hitherto seemed inalienably a part of the subjective self, but it permits the teacher wishing to do so to increase the students' sensitivity to important aspects of their own language and to the nature of argumentation. Hence, such courses should, in principle, be able to contribute very effectively to the writing program. My experiences as an editor make it quite clear that we would do well to avoid trumpeting extravagant claims about the beneficial effects that linguistic study can have on writing skills! However (and it is a good thing to keep reminding ourselves of this!) the kinds of courses that would form a central part of a liberal education are not the kinds of courses we were subjected to as part of our vocational training as linguists. As part of a general education curriculum, linguistics may well be able contribute significantly to the students' ability to think systematically and to communicate effectively over a range of subjects.

Let me summarize: I believe that linguistics, taught explicitly as a part of the general education curriculum at the undergraduate level, can make a very significant contribution. It gives students, both those with majors in the traditional "humanities" and those in the sciences, insight into fundamental aspects of human nature. This it does by examining the important human abilities underlying language development and use. At the same time, when the methodology used is essentially scientific, as it can be even at the introductory level, it enables students to engage in scientific thinking that involves both creative imagination and rigorous hypothesis testing -- without requiring high-level mathematical preparation or skills. This essentially scientific thinking is applied to aspects of human nature itself and is in that sense deeply "humanistic"; at the same time, the very act of doing science introduces many students who would not otherwise have the opportunity, to one fundamental but neglected cornerstone of contemporary culture. Linguistics can form a bridge between many disciplines, and may, finally, contribute significantly to the ability of the students to use their own language effectively to shape and communicate their ideas.

Linguistics as a Major

So far I have simply dealt in very general terms with why -- and, by implication, how -- linguistics should form an important part of the general curriculum. I have not raised the question whether it can appropriately form an undergraduate major. To address that question effectively, will require that I be more practical. To counterbalance that I shall also have to say something about why (as far as I can see) we require undergraduates to take a major at all.

From a practical perspective, students specialize, and need to do so, in order to prepare them for what they take to be their future. Fortunately, they do not always know just what that future will be, and the major is therefore, thank goodness, not justified by bread alone. In any case, quite aside from whatever mundane, practical, short-term reasons a student may give for following a particular major, the justification for having majors at all goes well beyond that of preparing students for specific careers: the major is, in some sense, the core and culmination of the undergraduate experience -- the focal point of a liberal education. It should embody the best of the ideals that drive our system, whatever practical goals it may also have.

Some majors represent the first rung on a ladder which, if all goes according to plan, the graduate will go on climbing, rung by rung, year after year. Many business and science degrees are of this nature, even when they are taken not as a preliminary to a career in the same field, but as a pre-professional degree. Early specialization is necessary in some areas. When the undergraduate experience is seen as principally vocational training of that sort, then linguistics cannot compete.

However, it would be a serious mistake to imagine, as many linguists have done even in the quite recent past, that a bachelors degree in linguistics is of no "use". Many, I believe most, of the UCLA linguistics undergraduates go to law school, for example, and many of those who don't do that go on to major in computer science at graduate school. A degree in linguistics is not simply for future linguists and other impractical dreamers, even if it hardly represents the first rung of the corporate ladder or the obvious route to a Nobel prize in chemistry. There are certainly many sought after majors which offer their graduates no better immediate prospects -- and a whole lot that offer them much worse.

But I don't want to say more about the immediate employment or academic prospects of graduates in linguistics. I want to return, instead, to my main theme: that linguistics has much of educational value to offer the undergraduate. Whatever the practical advantages or disadvantages of a linguistics major, there is little doubt that such a major is educationally sound. At one time, when linguistics was in effect a narrow branch of anthropology, isolated, with few obvious connections to any major area of human knowledge, and when the methodology was simplistic (though hardly simple!), then there was little if any justification for a major in the subject. The changes in the scope and outlook of the field, however, and the vast network of intellectual relations which it now has, or could have if one only took the trouble to seek them out, make it one of the disciplines most obviously suited to study as an undergraduate major.

In advanced undergraduate course-work, including senior seminars (or whatever device a college uses to integrate study in the major), the student can explore in depth, with great freedom, the implications of results that are very near the frontiers of research. More than any other field at the present time, linguistics forces the advanced undergraduate to engage in rigorous, systematic thinking within a more or less precisely determined framework, while at the same time, because so much is still exploratory, requiring both an extremely critical attitude towards results and an independent, imaginative and creative approach (within the paradigm) in order to obtain results. Of course, the very possibility of obtaining significant, original results during undergraduate work is itself virtually unique and certainly valuable. The undergraduate linguistics major who has graduated from a well-conceived program (and there are already a number of universities with excellent programs for majors) can hold his or her own in any company.

In a culture that is increasingly scientific, a world that is changing ever more rapidly, surely it makes sense, good hard practical sense, to encourage more and more of our undergraduates to take a major of this sort, based on rigorous, controlled, critical but independent creative thinking. Practical sense and educational sense too when the subject matter concerns one of the core aspects of human nature -- language.

Levels of Linguistics

I want to end with a very brief reference to some important implications of what I have said so far. To offer students the kind of educational experience that I have been talking about, we will need to change quite radically our thinking about course structure at the undergraduate level. We tend to think, implicitly, of three kinds of courses: the circus courses, the service courses, and the courses for majors and minors. And the kinds of courses we need to think about fall comfortably into none of those groups.

The circus courses (the one semester courses called something like "Introduction to Language") are no doubt important, but I am not talking about them. They are not designed -- or at least I know virtually none that are designed -- to introduce students to the kinds of issues or the kinds of thinking that I have been talking about today. They could be. In fact when I teach such courses, I insist on spending a good deal of the time doing precisely that. So I do some pretty hard syntax, and talk about parameters along with the birds and the bees. But still, the contribution such courses can make to educational goals is limited.

For related reasons, I am also not concerned with service courses. Obviously most colleges with linguistics in some form have more than just the circus courses. But most of those are either intended for majors and minors or can be classified as "service" courses. These are generally intended to introduce Communications majors, language majors and so on, to some slightly more advanced facts and/or methodology that either we or their departments think might be useful to them. Service courses tend to be very practical, and it's rather common for the students to be reluctant and ill-prepared. In any case, they are of limited educational significance.

I am no longer dealing with courses for majors either -- or for minors, though they form part of the potential audience which my proposals are aimed at developing. If there were as many linguistics majors and minors as English has, we might be able to contribute significantly to the education of the next generation by concentrating on them. But there aren't that many and I don't foresee there being that many in the near future. We need a new kind of course.

Consider the situation in the traditional "humanities" disciplines. Having taken the introductory course, Art 100 or whatever, you do not need to be an art major to regard it as perfectly natural to go on and take courses on the impressionists, modernism, the Bauhaus. It is not unusual for non-English majors to decide to take Creative Writing or Advanced Rhetoric. Many students end up taking several philosophy or history courses that they don't have to, without thereby committing themselves to doing a minor in the field in question.

In my experience rather few students do this in linguistics -- and few departments actively encourage it by structuring their program appropriately. For there is a vast tract of uninhabited territory between the circus tent and the ivory tower. Between the 100 level course and the rest. Unless we offer the right kinds of courses, as well as persuading our colleagues that students should be taking such courses the situation will not change.

Robert Jeffers recently sent me information on a **two-course linguistics sequence** called "Introduction to the Study of Language" that is to be introduced into the general education curriculum at Rutgers. The first course deals with rather general issues: universals, social context, dialects and so on, while the second concentrates on psycholinguistics and theoretical analysis of language. It is obviously too soon to say how that proposal is going to work. But it's on the right track. We need to develop several alternative sequences. We need lots of meaty, data based, theoretically informed courses, each of which on the one hand has students working with data and on the other has them thinking about the wider implications of what they are doing. Some should definitely be interdisciplinary, which could help to encourage students from other departments.

All those courses should build on a serious, well planned introductory course using lots of data to help the students discover how to build theory -- or better still a sequence of courses. The course(s) should dig deeply enough into the field to give the students a clear idea of how to think effectively about language. Yet they most definitely must not imply (as do so many of our more advanced undergraduate courses) that the students have to adopt the values and interests of professional linguists in order to make sense of the endeavor. Explicitly, such courses need to be set up as a part of general education. They will use appropriately selected material from the professional linguistic literature as well as drawing on the students' own knowledge of language. But, as linguists, we will have to continually steer ourselves away from theory for its own sake and towards an approach in which the gaining of insight into the nature of human language is -- and is very obviously seen to be -- the focus, while linguistic theory is clearly no more than the means to that end.

This idea will have to be sold to colleagues and administrators. It will obviously have to be built up slowly. Courses need teachers; teachers don't come on the payroll without students. And students don't come without courses to walk into. (As linguists we are quite used to dealing with vicious circles!) The first step is to start believing in what we are doing -- or even more basically: to be quite sure what it is that we are doing. And then to treat that circle as a spiral.

I am perfectly sure there are already many people who are implicitly and some who are quite explicitly trying to justify and develop programs along the lines outlined here. The recent changes in our field and the educational needs of the country make it inevitable that linguists should become involved in education. My purpose, in this paper, has been to try and articulate what it is that we may be trying to do, in the hope that that will help us move along just a little faster and with a little more confidence.

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(This is a slightly revised text of a paper given at the Conference on Undergraduate Linguistics at Princeton University, March 6, 1987.)

APPENDIX 4-I

Linguistics, Cognitive Science and the Undergraduate Curriculum

by

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The views expressed are those of the authors and do not necessarily reflect the position of the LSA or the National Endowment for the Humanities.

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PREFACE

The Linguistics in the Undergraduate Curriculum (LUC) project is an effort by the Linguistic Society of America (LSA) to study the state of undergraduate instruction in linguistics in the United States and Canada and to suggest directions for its future development. It was supported by a grant from the National Endowment for the Humanities during the period 1 January 1985–31 December 1987. The project was carried out under the direction of D. Terence Langendoen, Principal Investigator, and Secretary-Treasurer of the LSA. Mary Niebuhr, Executive Assistant at the LSA office in Washington, DC, was responsible for the day-to-day administration of the project with the assistance of Nicole VandenHeuvel and Dana McDaniel.

Project oversight was provided by a Steering Committee that was appointed by the LSA Executive Committee in 1985. Its members were: Judith Aissen (University of California, Santa Cruz), Paul Angelis (Southern Illinois University), Victoria Fromkin (University of California, Los Angeles), Frank Heny, Robert Jeffers (Rutgers University), D. Terence Langendoen (Graduate Center of the City University of New York), Manjari Ohala (San Jose State University), Ellen Prince (University of Pennsylvania), and Arnold Zwicky (The Ohio State University and Stanford University). The Steering Committee, in turn, received help from a Consultant Panel, whose members were: Ed Battistella (University of Alabama, Birmingham), Byron Bender (University of Hawaii, Manoa), Garland Bills (University of New Mexico), Daniel Brink (Arizona State University), Ronald Butters (Duke University), Charles Cairns (Queens College of CUNY), Jean Casagrande (University of Florida), Nancy Dorian (Bryn Mawr College), Sheila Embleton (York University), Francine Frank (State University of New York, Albany), Robert Freidin (Princeton University), Jean Berko-Gleason (Boston University), Wayne Harbert (Cornell University), Alice Harris (Vanderbilt University), Jeffrey Heath, Michael Henderson (University of Kansas), Larry Hutchinson (University of Minnesota, Minneapolis), Ray Jackendoff (Brandeis University), Robert Johnson (Gallaudet College), Braj Kachru (University of Illinois, Urbana), Charles Kreidler (Georgetown University), William Ladusaw (University of California, Santa Cruz), Ilse Lehiste (The Ohio State University), David Lightfoot (University of Maryland), Donna Jo Napoli (Swarthmore College), Ronald Macaulay (Pitzer College), Geoffrey Pullum (University of California, Santa Cruz), Victor Raskin (Purdue University), Sanford Schane (University of California, San Diego), Carlota Smith (University of Texas, Austin), Roger Shuy (Georgetown University), and Jessica Wirth (University of Wisconsin, Milwaukee).

The last two decades have seen the rise of a new interdisciplinary field which has come to be called **cognitive science**. Incorporating parts of the disciplines of psychology, computer science, philosophy, neuroscience and linguistics, this new field addresses a rich set of questions about the nature of the mind and knowledge that have long been at the heart of intellectual inquiry, both scientific and humanistic. Cognitive scientists seek an understanding of the mental capacities and processes that underly human behavior, and which lie at the heart of what it means to be a human being. The goal of the field is to bring the theoretical and methodological resources of the contributing disciplines to bear on an integrated investigation of thought, meaning, language, perception and mentally guided action.

In recent years it has become clear that the contributing disciplines of cognitive science have begun to converge on a common paradigm, which is usually referred to as the **computational** or **information processing** view. The core of this paradigm can be expressed in three propositions: first, that mental processes can be viewed as the manipulation of formal symbolic structures; second, that the formal structures ultimately bear a representational relationship to the world, or a domain of discourse; and third, that in any functioning mental system, such as a brain or an electronic computer, the symbolic structures must be instantiated in some physical substrate, such as a neural network or an electrical network of solid-state logical components. A full cognitive-scientific analysis of a mental system must characterize it in terms of formal structures and process, representation, and physical implementation.

These ideas are closely related to notions of hardware and software commonly used to describe computing systems. To understand a chess-playing computer, for instance, we deploy several levels of analysis. At the most abstract (representational) level, of analysis, we characterize the functional goals of the chess-playing program. Such a program might contain representations of current and possible board-positions, legal move generators, standard openings, and strategically-guided planning or search processes. At the algorithmic level of analysis, we look at just how the functional components can be implemented as computer programs. At the physical level of analysis, we look at how the program is actually instantiated in a machines made up of solid-state components and electrical signal paths.

Each level of analysis yields its particular insights. The abstract functional analysis gives a clear picture of what the system is designed to do. Certain strengths and weaknesses would be easily characterizable here: to what degree, for example, does the system use standard openings? The algorithmic level gives us a more detailed picture of the symbolic structures and processes. For example, we can tell exactly how a search for future possible moves is represented and carried out. If the search algorithm were inefficiently implemented, we would understand why the system was slow at certain points. The physical level of analysis shows us how it is possible for the functional design and the program -- which are essentially conceptual -- to operate in a physical device. At this level, for instance, we might come to understand how a search process is represented in terms of signal levels in memory chips, and why it is impossible, in terms of physical space-time constraints, to exhaustively search ahead more than a certain number of moves using a particular physical system. Cognitive scientists seek to

610

understand the human mind and to design artificially intelligent systems using this kind of analysis. But it should be noted that such analyses will be much more complicated than the previous example; new computational concepts that are completely foreign to the current world of digital computers may have to be introduced to cope with truly intelligent computation.

The notion of an interdisciplinary computational paradigm, and the terminology used to develop it, are relatively new. But the ideas underlying it are in fact familiar and indeed central to contemporary linguistics and its allied fields. That language -- like other cognitive capacities -- is a system of formal structures and rules, is the central tenet of modern linguistic theories, and the main subject of current linguistic research. The notion that these formal structures are representationally related to the way in which language is actually processed, perceived, produced and used in the world, is the subject matter of much collaboration between linguists and psychologists, as well as philosophers. In collaboration with neuroscientists, linguists explore the question of how language is actually implemented in the brain and nervous system; with computer scientists, linguists ask how (or if) language could be implemented on other kinds of physical devices.

If it is conceived and taught as a broad, integrative area of study, cognitive science deserves a prominent place in the liberal arts curriculum as a whole, and linguistics merits a central place in such a curriculum. Physical science is concerned with the nature of matter and energy; biological science with the material basis of life; social science with the nature of social phenomena. With the nature of mental phenomena as its domain, cognitive science can be placed on a par with these other major branches of inquiry. It can be seen, indeed, as the contemporary embodiment of a large portion of the classical curriculum that has been somewhat out of focus in modern curricula dominated by the natural and social sciences. Questions about the nature of thought, language, knowledge, truth and perception ought to be at the heart of liberal education, and were given more integrated attention in pre-twentieth century curricula; the emergence of a scientific paradigm has significantly revitalized the integrated study of mind.

In addition to these core intellectual issues, cognitive science possesses a number of other characteristics that make it an excellent liberal arts field. It is, arguably, the bridge discipline between the natural and social sciences, giving sustained attention to the relationship between body and mind, knowledge and behavior. Students of cognitive science are introduced to the experimental method, to serious formal study and to current computational theory (without being required to study the conventional physical scientific or mathematical curricula in depth). Thus cognitive science offers an alternative way of training students in scientific and formal methods. Finally, the importance of cognitive development and education in modern societies, and the development of and controversy over artificial intelligence technology have also given cognitive science new practical and ethical dimensions.

Because language is the most prominent marker of human intelligence, linguistics and its allied fields (psycholinguistics, neurolinguistics and computational linguistics) play a vital role in this integrative vision of cognitive science. As we noted earlier, linguists have long been concerned both with the formal analysis of language, and with the implications of their analyses for the nature of the human mind and brain. The study of linguistics, particularly in its contemporary interdisciplinary context, gives students not only direct training in cognitive science itself, but also an appreciation of the intricacy and power of language, general training in precise formal and empirical methods, and an invaluable perspective on crucial policy issues, ranging from the influence of bilingualism on cognitive development to the potential uses and misuses of computers.

Interdisciplinary cognitive science programs are in various stages of development at roughly forty institutions of higher education in the U.S. In nearly every case, these programs draw on the resources of previously existing departments and faculty. The typical college or university already contains a core group of faculty members who are excited about developments in cognitive science, and eager to teach and to do research with faculty in other departments who have complementary training. It is also common to find that the existing core group can be significantly strengthened by one or two new appointments in underrepresented disciplines. In light of the central role of linguistics, every cognitive science program ought to include a linguist if at all possible. Put in another way, cognitive science provides a new and powerful rationale for the inclusion of contemporary linguistics in the undergraduate curriculum, both in its own right and as a vital part of cognitive science as a whole.

Our argument thus far has been general and programmatic. Let us turn now to a more detailed sketch of some of the issues, theories and results that animate contemporary linguistics, and bear on its role as one of the cognitive sciences.

The relationship of language, thought and knowledge, for instance, is an enduring problem of great general interest. Cognitive scientists want to know in what form knowledge is represented, and the character of the processes that mediate and manipulate such knowledge. One common and popular belief is that many aspects of knowledge and thought are directly encoded in linguistic form (i.e., represented in some human language), or in a form that is closely related to language. The introspective experience of "inner speech" (we may seem to hear ourselves talking as we solve problems, or remember facts and events) is suggestive of this view. If this approach is correct, we may wonder to what extent language determines and regulates our thinking, and we may ask whether thought patterns vary across time and culture, as languages appear to do. This form of linguistic determinism (sometimes called the Whorf Hypothesis, after Benjamin Lee Whorf, the linguist who explored such ideas several decades ago) is rather strongly and widely held by the general public, and a fair number of academics; it informs many of our beliefs about cultural differences, the possibility of understanding and communication across cultures, and the ways in which language differences may inform writing, learning and pedagogy in general.

It is interesting that few linguists and cognitive scientists subscribe to this view. Many results in cognitive science suggest that the "language of thought" is quite distinct from the particular natural languages that we speak; and there is considerable support for the position, associated with Noam Chomsky, that the apparently dramatic differences among languages are minor variations on a very general (universal) plan that is part of the fundamental architecture of the mind. On this view, individuals and groups speaking diverse languages are, at the appropriate level of description, far more alike than different. The issue is by no means resolved, but it represents an area in which linguistics, and cognitive science at large, can contribute to our understanding of human nature and human differences, and is one with which a liberally educated individual should be familiar.

Linguistics also plays a special role in the exploration of learning, a fundamental problem for cognitive science. We are surely not born knowing English, or Zulu, or any of the particular properties of the several thousand languages now spoken. The grammars (systems of knowledge) that characterize these properties are highly complex; adult linguists labor mightily to provide adequate descriptions of the generalizations that constitute such grammars. Nevertheless, very young children are able to acquire these systems of knowledge rapidly, easily, and with very little (if any) instruction. Thus, children's acquisition of language is one of the most challenging phenomena for theories of learning. Indeed, some contemporary linguists are of the opinion that there are crucial properties of grammars that cannot be induced by the child from experience (from the language behavior of parents and peers). These aspects of linguistic knowledge may not be learned at all, but rather arise from innate (genetically-specified) characteristics of the mind. Once more, the details are much debated, but the controversy over the genetic basis of human capacities is one which should figure importantly in a contemporary liberal education, and linguistics, in the framework of cognitive science, can provide a fruitful arena in which to explore a well-defined set of questions about the relationship between "nature" and "nurture."

The study of language poses other problems and challenges for cognitive science. Linguists are, for instance, inclined to investigate linguistic structure and language behavior as distinct phenomena. The contemporary integration of linguistics with the other cognitive sciences was initiated by Chomsky's claim that a theory of the structure of language is also a psychological and a biological theory of human knowledge of the rules and principles of sentence-formation, pronunciation and meaning. Such bodies of abstract knowledge, called linguistic **competence**, are theorized to be largely independent of the uses to which the knowledge is put -- in the production and perception of language in actual behavior. This latter domain of domain linguistic **performance** has been investigated jointly by psychologists (psycholinguists) and linguists. The game of chess again provides a useful analogy. A competence theory of chess constitutes an account of the initial arrangement of chess pieces on the game board, the legal moves and conditions for terminating a game. A performance theory of chess, by contrast, characterizes actual game strategies and procedures. A chess performance theory must somehow take the competence theory into account, since the rules for legal movement must be obeyed in formulating strategies. For example, the performance theory might assume that the rules of chess are represented in a distinct knowledge base which is consulted by strategy generating processes. Does the same hold true for language? Some psycholinguists hypothesize that a separate representation of abstract linguistic rules is recruited by the strategic performance processes that operate during the perception and production of language. The investigation of this hypothesis requires work at the intersection of linguistics, psycholinguistics and neuroscience. For example, one piece of positive evidence comes from the study of neurological patients whose brain damage has led to aphasia, a deficit in the ability to produce or perceive language. Some aphasic patients retain the ability to make judgments about the grammaticality of sentences, and the proper pronunciation of words, even though their ability to use words and sentences is severely impaired. These patients may be said to suffer a disruption of their performance mechanisms that is independent of their underlying linguistic competence. If this view is correct, is it a unique property of language (perhaps a function of the special way in which language is represented in the brain), or are there other domains of cognition that reflect a similar division of mental labor? Linguistics thus plays a crucial collaborative role not only in our understanding of mental processes, but also in our investigation of how mental systems are instantiated in the human brain.

The study of language provides a testing ground for other broad questions about the nature and structure of the mind. One compelling view of the mind is that it is a powerful, general information processor with a largely homogeneous structure operating over different types of information (linguistic, visual and so forth) with common strategies and processes. Much work in the field of artificial intelligence, for example, proceeds from this kind of assumption. By contrast, other cognitive scientists view the mind as a set of separate, largely independent modules with distinct properties and mechanisms. Linguistics and psycholinguistics figure centrally in this important debate. The problem of language understanding provides an illustration. When we hear utterances in a discourse, we potentially have access to a great deal of information: the linguistic properties of the utterance (its pronunciation, its sentence structure, the meaning of its individual words and so forth) and also information about the speaker (his or her background, emotional state, beliefs and related information), about the context of the utterance, and shared knowledge about the world at large. On the non-modular view, we might well expect any and all of this information to be recruited, perhaps simultaneously, as we attempt to understand what the speaker means. Many "language-understanding" systems for computers rely on assumptions of this sort. But if language understanding is organized modularly, it might be the case that we first assign a grammatical structure to utterances independently of non-linguistic factors like context or general knowledge. Non-linguistic knowledge might ultimately be brought to bear on the problem, but as a separate mental process. There is a large body of experimental psycholinguistic data that bears on this issue. Some of the evidence supports a view of language understanding in which linguistic structure is assigned by a modular process, independent of other information. There have also been attempts to apply the modular approach to natural language understanding on computers, in which linguistic grammars play a crucial special role in the initial analysis of incoming sentences. The debate over the modularity of mind illustrates again that work within linguistics can be synthesized with work in related fields to address some core problems within cognitive science -- problems that are of interest not only to the student of language, but also to the student of mind in general.

Some may find the debate over modularity surprising. Much like our beliefs about the relationship between language and thought, we often feel that our language is so inextricably bound up with other aspects of our mental lives and our behavior that modularity theory would be ruled out on common-sense grounds But hypotheses in cognitive science, as in any branch of science, are tested against experimental and observational data, and are not judged by their consistency with our everyday beliefs. This illustrates the way that linguistics and cognitive science bring the methods and framework of formal scientific inquiry to bear on questions about human language, human mind, and human nature that are too often addressed only casually and informally by undergraduates.

Linguistics is not exclusively concerned with matters that fall within the central purview of cognitive science, of course. Questions about the social uses of language -- e.g. the ways in which linguistic variation reflects and helps to regulate social structures, or the political role that language-group identity plays in ethnic conflict -- are of deep interest to anthropology, social psychology, political science, and sociology. Indeed, such questions may be viewed as a potential interface between the cognitive and the social sciences. The cognitive nature of linguistic aesthetic experience, also little studied, can provide for exciting connections between linguistics, cognitive science, and literary studies. Finally, as we have suggested, linguistics raises some important questions for the biological sciences: the claim that language learning has a specific genetic basis; the question of how (and where) linguistic knowledge and processes are represented in the brain and nervous system; and general questions within cognitive science about the evolutionary pressures that have given rise to particular architectural properties of the mind (e.g., modularity).

It should be emphasized that linguistics can serve to enrich pedagogical and intellectual work in connection with these other curricular areas even in the absence of an organized program or major in cognitive science. Interdisciplinary courses involving linguists and psychologists, computer scientists, philosophers, or neuroscientists can clearly address deep substantive issues fruitfully, even when such courses are not part of a larger program. More than that, one might say that linguistics, and linguists, have a strong natural tendency toward interdisciplinary interaction. It appears to be in the nature of the subject matter for insights and results to spill into other fields, and to encourage both research and teaching interactions. Linguistics also has considerably less of the kind of departmental history and tradition that may mitigate against intellectual cooperation and interaction. In this sense, linguistics can be regarded as a seed discipline that has the potential to spark the kinds of interaction that will lead to pressure for the development of a multidisciplinary program in cognitive science.

APPENDIX 4-J

Linguistics in the Study of Information and Intelligence

by

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The views expressed are those of the authors and do not necessarily reflect the position of the LSA or the National Endowment for the Humanities.

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1 Introduction

The following pages sketch briefly some of the exciting new developments resulting from the collaboration of linguists with investigators from other disciplines sharing a concern with how intelligent agents process and communicate information about the world. Special attention is given to the role of linguistics in these developments, and to a new undergraduate program at Stanford University designed to train future generations of interdisciplinary researchers in this field.

Let us begin with the following rather mundane situation:

> The telephone rings, and a child answers.
>
> "Hello."
>
> "Hello. Is a grownup there?"
>
> The child calls his mother, and she picks up the telephone.

This is an extremely simple sequence of events by human standards. Now suppose that we wanted to design a machine to play the child's role. What are some of the things that the machine would have to be able to do? It would need to:

- recognize discrete words in a continuous stream of sound;
- know the meanings of individual words;
- attend to aspects of grammatical structure relevant to the meaning of what is said; for example, distinguishing the question *Is a grownup there?* from the statements *A grownup is there* and *There is a grownup*;

- take relevant contextual factors into account; for example, determining that *there* in this exchange means the location of the answerer, though in other contexts it could refer to other locations;
- on the basis of knowledge about the world, about human goals and actions, and about social conventions, infer the caller's intentions and respond appropriately—that is, get a grownup to the telephone, rather than simply giving the literally correct but clearly inappropriate response *Yes*.

The ability to conduct even the simplest conversation involves abilities that, until recently, were not associated with machines—abilities like recognizing, knowing, attending to, taking into account, and inferring. Indeed, most, if not all, aspects of what we think of as intelligence are called upon in normal, everyday language use. Hence, the study of language use is a particularly rich source of insight into the nature of intelligent behavior.

Programming a computer that genuinely understands language is, as the example illustrates, an enormously complex and difficult task. Computer scientists working on it have had some preliminary successes with specialized routines for handling very restricted types of utterances, but these tend to be difficult or impossible to extend or transport. What is needed is a theory of language use that is at once rigorous enough to be computationally implementable and flexible enough to deal with the subtleties of human language. Trying to build a language understanding system without such a theory is like trying to build a calculator on a case-by-case basis, without a theory of arithmetic.

A number of disciplines have contributed to the establishment of such a theory. Cognitive psychology provides experimental evidence for the ways in which humans perceive, classify, and reason about their environment. Logic provides mathematically sophisticated characterizations of meaning and inference for formal languages, which serve as powerful theoretical tools to apply to natural languages. Artificial intelligence provides a rapidly growing arsenal of devices for the representation and manipulation of information; while these have been developed largely for the simulation of specialized "expert" knowledge, many have useful applications as well in modeling such commonplace (but in many ways more remarkable) abilities as language understanding. Philosophy provides a tradition, over two millennia old, of careful inquiry into the nature of human knowledge and its relationship to the world. Finally, of course, linguistics plays an especially central role: it is linguistics that provides precise and detailed accounts of the sound patterns of languages (in physical, physiological, and psychological terms), as well as a rich tradition of theories and descriptive devices for the analysis of grammatical structures and their functions.

The development of a theory of language use capable of supporting a genuine language understanding technology will involve the coordinated efforts of all of these disciplines. Many promising interdisciplinary collaborations are contributing to a newly emerging field of research concerned with the structure, content, and processing of information.

2 The Role of Linguistics

For a number of reasons, linguistics plays a special role in this enterprise, and its significance will receive wider recognition as this area of investigation assumes increased technological and commercial importance in the coming decades.

Natural languages are the most highly developed symbolic systems in existence. No artificial language (including computer languages) can compare with any natural language in the variety of syntactic forms permitted, nor in the range and subtlety of meanings that can be expressed. Other naturally occurring symbolic systems (bird calls and bee dances, for example) are likewise relatively impoverished in comparison with human languages. A general theory of how information is conveyed through symbols thus can draw heavily on the systematic study of human language, that is, on linguistics.

To illustrate this point, consider the question of how the elements in a relation are differentiated in artificial languages, using the division operator as an example. Artificial languages use one of two techniques: either the arguments are given in a canonical order (e.g., $12 \div 3 = 4$), or they are identified with keywords (e.g., *dividend: 12, divisor: 3, quotient: 4*). Each of these strategies has its advantages: the former is notationally compact, whereas the latter allows the elements to be introduced in any order. There are analogues to both of these formal devices in natural languages: English uses word order to differentiate subject from object (*The man saw the woman* vs. *The woman saw the man*), whereas Japanese uses particles adjacent to the nouns:

otoko	ga	on'na	o	mita
man	SUBJ	woman	OBJ	saw

"The man saw the woman"

on'na	ga	otoko	o	mita
woman	SUBJ	man	OBJ	saw

"The woman saw the man"

It is the particles *ga* and *o* that indicate who did the seeing and who was seen; reversing the order of the nouns would not alter this. Thus, *on'na o otoko ga mita* also means "The man saw the woman."

In addition to these two strategies, however, natural languages have others that serve the same general purpose. In Russian, for instance, the roles of the participants in a sentence are indicated by changes in the form of the nouns in the sentence. Thus, we have

chelovek	videt	zhenshchinu
man	sees	woman

"the man sees the woman"

zhenshchina	videt	cheloveka
woman	sees	man

"the woman sees the man"

Again, the word order is not essential, nor are there distinct particles to mark the difference between subject and object. Finally, some languages mark the verb, rather than the nouns, to indicate who did what to whom. In Abkhaz, a language of the Caucasus, one would say:

a-	xàc'a	a-	pħ°ə̀s	də-y-bè-yt'
the	man	the	woman	her-he-sees

"The man saw the woman"

Here it is the form of the verb that indicates that it is the man who sees the woman, rather than vice versa. As in Japanese and Russian, the order of the nouns is not important.

As the above examples illustrate, natural languages exhibit a wide range of formal devices for conveying information, including some that have not been exploited in artificial languages. Natural languages provide a rich source of ideas about the ways in which information can be encoded in symbols. Each of the different strategies illustrated above serves the same general purpose, but they may well differ with respect to such matters as learnability and processing difficulty. Designers of artificial languages might well learn something from a closer look at natural languages.

Moreover, anyone interested in natural language processing by computers quickly comes to realize that failure to attend to apparently arbitrary grammatical details will, in the long run, lead to misunderstandings. The phenomenon of subject-verb agreement in English, for example, appears at first glance to be completely redundant, since the singular/plural distinction is marked both on the noun and the verb. This has led some builders of natural language processing systems to believe that it could be ignored: the number marked on the subject would be used to determine the semantics, agreement would not be checked, some ill-formed input (e.g., *The men is here*) would be accepted, and no harm would be done. Eventually, however, this strategy is doomed to failure, for even such seemingly meaningless bits of grammar as agreement serve to resolve ambiguities in some cases. If, for example, a sales executive were to tell the company's customer database ***List every company with Japanese affiliates that buys widgets***, the answer would very likely not be the same as the answer to ***List every company with Japanese affiliates that buy widgets.*** A natural language interface that failed to distinguish these two sentences could cost a company millions of dollars. Only linguists have detailed theories of such apparently arcane facts about language structure, so designers of natural language systems need training in linguistics.

Linguistics is exceptional, too, in the range of phenomena it deals with. Under the umbrella of linguistics fall such diverse aspects of language as the physical properties of speech sounds, the physiology of the organs of speech and hearing (including the relevant parts of the brain), the patterns of regularities exhibited by related word forms, the grammatical patterns of languages, the meanings of words, how word meanings are combined into phrase meanings and sentence meanings, the relationship between literal and conveyed meaning, the variations of pronunciation and syntax across groups of speakers and circumstances of use, and how languages change. Thus, linguistics is concerned with all facets of one symbolic system (natural language), from its medium to its message, from its forms to its functions.

No other discipline looks at any symbolic system from such a variety of perspectives. This is important in part because of the subtle ways in which the information conveyed can be affected by the form in which it is expressed. For example, the stress pattern in a sentence like *John insulted Bill after he criticized Mary* can affect the reference of the pronoun: if the verbs *insulted* and *criticized* are stressed, *he* will be interpreted as John, but if *he* gets heavy stress, *he* will be taken as referring to Bill. Only by attending to diverse aspects of the system can such interactions be analyzed. Certainly, any hope of developing fully automatic speech understanding systems will depend on having theories broad enough to deal with facts like this.

In short, anyone concerned with how information is conveyed and processed should know something about how natural languages are structured and used. Linguistics offers a wealth of theoretical concepts for the analysis of sentence structure and linguistic sound patterns, developed over a period of twenty-five centuries. In the decades since World War II, there has been an explosive growth in this discipline, resulting in theories of unprecedented precision and generality. The electronics revolution that has occurred in the same period has also created powerful new tools for the analysis and synthesis of speech. It is just beginning to have a similar impact on other areas of linguistics.

One final attribute of linguistics that is of interest in the present connection is its accessibility. Despite its long history and theoretical sophistication, most of modern linguistics is comprehensible to an intelligent undergraduate. Unlike the physical sciences, in which current research questions can only be understood after years of study, the frontiers of linguistics are accessible after only a few courses. There are several reasons for this, two of which deserve special mention. First, most areas of linguistics depend less heavily on complex mathematical results than is common in many other fields; hence, extensive mathematical training is not a prerequisite to doing advanced work in linguistics. (Work on speech synthesis and analysis, cited above, is an exception). Second, since every normal human is a native speaker of a natural language, we all have a rich store of (typically unsystematized) knowledge about language prior to any formal study, a store that can be tapped to permit students to make very rapid progress in understanding how natural language works.

One very concrete way in which everyone's tacit knowledge of language serves linguistics instruction is as a source of data. While other sciences require the student to become familiar with elaborate laboratory techniques that will, with considerable effort on the student's part, produce data relevant to the formulation and testing of hypotheses, linguists can perform crucial experiments merely by concocting strings of words and assessing their well-formedness. This can often be done instantaneously, without leaving one's seat. Hence, experiments in linguistics can be performed in class, without any special equipment, and, in many cases, by the student. This makes it possible for the teacher to concentrate on argumentation and theory development, rather than on techniques of data collection. The result is very rapid progress to the frontiers of the field. Consequently, it is common in linguistics for undergraduates to do original research, in some cases even publishable research.

Linguistics, then, is a particularly suitable vehicle for teaching undergraduates how to evaluate theories by drawing out their empirical consequences and designing test cases. It gives them the opportunity to experience first-hand what it is like to formulate hypotheses, evaluate them experimentally, and write up the results. This facilitates the development of valuable thinking and writing skills that should be applicable to a wide variety of other endeavors. Hence, linguistics would be a useful component in almost any student's undergraduate education. For the reasons given earlier, it is a must for any student primarily interested in questions concerning information and intelligence.

3 Stanford's Symbolic Systems Program

Because of the many points of contact between linguistics and other aspects of the study of information and intelligence, it is evident that the development of a general theory of language will, in the long run, depend on the next generation of researchers, whose multidiscplinary training must begin early in their careers. Towards this end, Stanford University has recently initiated a new undergraduate major, called Symbolic Systems.

The program requires study in five traditional disciplines: Computer Science, Linguistics, Logic, Philosophy, and Psychology. Each student must complete a common set of eleven core courses in these fields, plus a concentration in one of eight areas: artificial intelligence, cognitive science, computation, logic, natural language, philosophical foundations, semantics, or speech. It is excellent preparation for graduate study in any of several fields, or for employment in the information industry.

Stanford is an ideal setting for the establishment of such a program, for it has long played a leading role in the study of information and intelligence. With world class departments of computer science, linguistics, philosophy, and psychology, it has a long history of interactions among these fields. An interdisciplinary research program in cognitive science was established in the late 1970s, with funding from the Alfred P. Sloan Foundation. More recently, a gift from the System Development Foundation led to the establishment of the Center for the Study of Language and Information (CSLI), a unique institution that brings together scholars from academia and researchers from industry, all concerned with problems of language and information.

Its founders hope that Stanford's leadership in these areas of research will give the Symbolic Systems Program a high degree of visibility, which will lead, in turn, to the establishment of similar programs at other colleges and universities.

APPENDIX 4-K

Some Thoughts on the Role of Linguistics in a Liberal Arts Education

by

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The views expressed are those of the authors and do not necessarily reflect the position of the LSA or the National Endowment for the Humanities.

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I think it is probably the case that linguistics is never going to be a giant undergraduate major at any university. The best one can hope for is a relatively small number of dedicated linguistics majors. Hence, from the point of view of university administration, a faculty of linguistics likely cannot justify its existence on the basis of the number of its undergraduate majors. Nor is an administration likely to offer enthusiastic support to linguistics just because the faculty happens to be brilliant in the field. Rather, the typical scenario seems to be, at best, that the administration approaches linguistics with some vague good will (linguistics is known as an up-and-coming field, or was in the seventies--now I'm not so sure) but with little idea of what linguistics is really about. If one is lucky, there will not be any institutional hostility from departments of literature or anthropology or education or other places that have a residual claim on the field.

In order to persuade an administration and one's nonlinguist colleages that linguistics deserves the institutions's support, then, it is necessary to have good reasons for linguistics to play a role in undergraduate education beyond its value as a major. If at all possible, this role should be regularized within general university distribution requirements. That is, the presence of linguistics in the university must be justified much more on the basis of the introductory course than is the presence of more traditional departments such as philosophy or psychology or of more financially rewarding departments such as computer science.

There are a number of arguments for linguistics in a liberal arts education that I think are fairly well known. One that I am fond of (but which must be used with care, as it it is often hard to get across to someone who has not taken the course) is that linguistic theory can be presented as an experimental science in which it is particularly easy to do experiments. Making linguistic judgments and coming up with examples and counterexamples can confront a student with the nature of scientific theorizing at zero cost in equipment and minimal cost in time. Thus it is possible to deal almost immediately with the genuine problems of how the scientific enterprise is conducted, revealing a methodology that goes against many of the stereotypes one has been handed about the so-called "scientific method." Doing linguistics, even at an introductory level, can be an important exercise in critical thinking and empirical investigation.

At the same time, linguistics is new enough that in an introductory course one can reach in some detail many areas about which little is as yet known, with students themselves providing crucial evidence. This is again important, because most introductory science courses are presented as bodies of established results--and this is the way students are urged to understand science. (Alternatively, in fields like genetics or astrophysics, the approach to currently outstanding questions is experimentally complex and remote from anything the student could expect to experience him/herself.) In my own courses, I have found students astonished when I answer their questions with "We don't know yet." It is important that science be seen in this light, as an ongoing enterprise in which we are trying simultaneously to frame the issues and work out their empirical consequences. Linguistics,even at an elementary level, can be a wonderful vehicle for this.

A deeper reason that linguistics is important to the liberal arts enterprise, and one that I think has received less attention, is that it provides important evidence about human nature--not just about language per se, but about human nature in general as exemplified by the facts of language. What I have in mind is this. There is a strong current in the lore of our culture that sees human beings solely as the product of their environments, as being taught essentially everything they know. I am not sure how this is conveyed to the young; but in my experience if you scratch an undergraduate (or in fact any layperson) you invariably find a behaviorist. Along with this--and more pernicious--goes a rigid social Darwinism to the effect that all so-called human values are relative and are set by the environment. For example, in economics, the facile assumption that people are driven by selfish or greedy motives alone and that satisfaction of one's own desires is the only defensible human value is taken to lead to the conclusion that "the market is always right"--whatever happens is a consequence of the law of survival of the fittest. I hope I needn't document the effect on current events of such ideology, a caricature of scientific objectivity.

What does this have to do with linguistics? The major result of generative linguistics, I believe, is that knowledge of a language is (1) highly complex, (2) for the most part unconscious, i.e. nearly opaque to introspection, (3) largely unlearned. These points can be presented in a lecture or two, but they are made far more real to the student through a rigorous introductory linguistics course that confronts the puzzles of linguistic knowledge and digs and digs at them for weeks on end, so that the student has actual personal experience with the facts.

As one goes along in the course, one can then begin to ask, If such a relatively basic element of human culture is so complex and so different from the stereotype given by the lore, what about the rest of human nature? For example, since cultural conventions, like principles of language, are used creatively and often without conscious effort, to what extent must they be represented as unconscious mentally instantiated principles? To what extent are standard assumptions about culture as unjustified as standard assumptions about language? To what extent are cultural conventions learned and to what extent are they innate? How does a child acquire cultural principles that are not taught? To what extent are cultural artifacts such as ritual and even law governed by complex innate mental organization (that is more highly structured than, say, Darwinian, Freudian, or sociobiological theories would have it)? And so forth. The effect of such questions in the context of strong and palpable results in linguistics is to instill in the student a much greater respect for the complexity and richness of the human mind and to call sharply into question the simple-minded views that underlie much contemporary psychological, economic, and political reasoning.

The point of pursuing this approach is not to be able to provide a student with strongly justified alternative points of view on these crucial matters. It is only to make clear how wrong the standard assumptions are in the case of language and, by parallel reasoning, to raise motivated questions about the other areas. That is the most that linguistics as such can hope to provide. On the other hand, language is virtually the only part of human nature where these issues have been addressed. Thus, given this fact, and given the privileged status of language among our cultural equipment, it seems to me that one must take very seriously the linguistic arguments for innate unconscious knowledge, for rule systems as opposed to accumulations of facts or habits, and for learning without explicit instruction. It further seems to me that these arguments are powerful enough and rich enough in larger implications that they deserve to be part of every educated person's understanding of human nature. This is for me the central reason that undergraduates should be grappling with arcane details of phonology and syntax, and the reason I continue to care about teaching introductory linguistics.

APPENDIX 4-L

Stylistics and Poetics

by

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The views expressed are those of the authors and do not necessarily reflect the position of the LSA or the National Endowment for the Humanities.

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PREFACE

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Viewed in its broadest scope, linguistics touches nearly every discipline in the humanities and social sciences, many in the natural sciences, and, as collaborative research and teaching go forward in law, education, and medicine, an increasing number of the professional fields. Linguistics serves as an embracing, supportive discipline in fields outside itself for which the study of language is significant. An important member of this group is the discipline of English. In what follows, I shall adopt English as an example of a field whose interpenetrating relationships with linguistics epitomize a major contribution that linguistics makes to the undergraduate liberal arts curriculum. For English, linguistics can make an even more significant contribution: lending a unity of concerns to a multifaceted discipline.

Today the major points of contact between English and linguistics are in stylistics and poetics. The definition of these fields varies with the user: I shall use "stylistics" to mean an inquiry seeking more and better descriptions of texture, both in literary artworks and in expository prose; I shall use "poetics" to describe contributions to what has come to be called literary theory. In the context of English studies, linguistics can enrich descriptions of texture and constrain theoretical claims. Through stylistics and poetics, linguistics can influence the undergraduate English curriculum from freshman composition to the senior seminar. That influence will increase to the extent that linguists do not make exaggerated claims of superior validity for the facts their theoretical analyses of texts uncover, and that English scholars resist the temptation to impute "scientism" to linguistics.

Under the rubric of "stylistics," I want to suggest some contributions that linguistics can make to enriching the study of texture in literary artworks and workaday prose, both subjects of concern to the discipline of English. While these concerns will seem very different at first, I hope it will be understood in the end that they derive from a single linguistic paradigm.

For at least twenty years, it has been fashionable to deride the so-called New Criticism in the study of poetry. Yet the New Criticism, limited as its scope came to be perceived, had the virtue of concentrating the reader's attention upon a poem's text and requiring the reader to account in terms of speaker and dramatic situation for features of that text. While modern linguistics arose from an intellectual milieu quite different from that of the New Criticism, it sustains part of the New Critical tradition by providing new descriptive frameworks for the texture of poems. Here I will focus on syntactic texture.

Consider the case of Coleridge's "Kubla Khan." Years ago the eminent Coleridgean scholar Elisabeth Schneider (1953) called the poem "a fragment with a postscript added at some later time when it became obvious to the poet that he could not finish the piece." That judgment remained largely unchallenged until an Anglo-American linguist, Timothy R. Austin, conclusively demonstrated (1977) the poem's unity in purely formal terms. That unity depends, Austin showed, upon various strategies of preposing -- the shifting of grammatical units to the left of their normal position in English syntax -- of sentence elements that occur at crucial points in the poem, particularly at the beginning and near the end. Coleridge wrote "In Xanadu did Kubla Khan / A stately pleasure-dome decree," not "Kubla Khan decreed a stately pleasure-dome in Xanadu." Austin shows how each of the syntactic transformations required to achieve the poem's highly marked but still grammatical word order -- subject-auxiliary and verb-object inversion, among others -- work to depict a conflict evident here and elsewhere in Coleridge's poetry between the reclusive and the engaged life. The poem resolves that conflict in favor of the latter, Austin shows, using aspects of Mark Liberman's work on intonation, when similar preposing at the poem's climax requires the discourse's pitch to rise progressively to its highest point on the first word of "I would build that dome in air" ("Could I revive within me / Her symphony and song / To such a deep delight 'twould win me / That with music loud and long / I would build...."). Thus, on this argument, "Kubla Khan," far from being a fragment with a postscript, is a highly unified poem central to the Coleridgean canon.

Linguistics has made similar, if less dramatic, contributions to the study of literary prose, but these are difficult to summarize. I shall merely remark upon what I believe to be the best (and among the most difficult) of these, Ann Banfield's Unspeakable Sentences (1982), a theoretical but richly documented study of narrative fiction and the style indirect libre, and turn to the uses of linguistics in that other major concern of any department of English, expository composition.

The most significant and practical contribution of linguistics to the theory and teaching of expository composition has been Joseph Williams's Style: Ten Lessons in Clarity & Grace (2d edition, 1985). While considerations of "grace" are important to what English departments do in the theory and practice of composition, I shall restrict myself here to that portion of Williams's study that most clearly derives from issues in linguistics, namely clarity. Clarity, for Williams, arises from one very simple, very powerful principle of revision. That principle requires the writer to express the inherently movable units of a sentence's meaning -- Agent, Action, and Goal, in the inherently fixed-order slots of a sentence's grammar: Subject, Verb, and Complement.

For Williams, a turgid, overly complex style results when a writer expresses crucial actions not as specific verbs, but as nominalizations, as in:

> Proving the existence of bias on the part of the employer is dependent upon the production of evidence of his refusal to interview minority applicants.

As a first revision strategy, the writer takes the nominalizations *proving*, *production*, and *refusal* and makes them into verbs (*prove*, *produce*, and *refuse*). This process forces the writer to search for agents for those actions (*sc.* subjects for those verbs). *Who* proves? *Who* produces? *Who* refuses? When the revision is complete, units of meaning and units of grammar are aligned, and the prepositional phrases and other verbiage necessitated by the shift from canonical word order disappear:

> In order to prove the employer is biased, you must produce evidence that he refused to interview minority applicants.

While no writer will want to compose in exclusively this verbal style, Williams convincingly demonstrates that this kind of revision clears out the underbrush from needlessly complex prose and clarifies opportunities for further revision that, for example, allows control of point of view through functional sentence perspective, a concept of Prague Circle linguistics.

While much other work on the theory and practice of composition draws to varying degrees (and with varying degrees of success) on linguistics -- George Dillon's *Constructing Texts* (1981) and E. D. Hirsch's *The Philosophy of Composition* (1977) to name but two --, Williams's does so most directly and, together with the work of Austin and others on the syntactic texture of poetry, raises the question of what the undergraduate must know in order to make use of these contributions from linguistics to the concerns of English studies.

For reasons that I shall expand on below, every student in a language-and-literature discipline (including English and the foreign languages) should have training in linguistic theory, including the analysis of competing linguistic theories. Analytical skills are the primary contribution that linguistics can make to the study of literature, and a course in linguistic theory gives a student analytical tools that are much more explicit (not necessarily better, merely more explicit) than those of traditional and modern literary criticism. The same can be said, *mutatis mutandis*, for the contribution of linguistics to student work in expository writing.

In addition to acquiring the linguist's analytical habits of mind, the undergraduate student in these fields needs to know a basic array of facts about the English language: the history and general structure of English; the patterns of English syntax; the structure of discourse; and the sound pattern of English, its phonology, including at least a full account of English stress. To the extent that these concerns are not taken up in the first three areas I suggest, the student also should know something about semantics and pragmatics. In essence, I suggest that if modern stylistics and poetics are to be integrated with the undergraduate English major (the same concerns apply to their integration with foreign-language majors), a student must have a thorough grounding in English grammar (broadly construed) and the theory by which that grammar can be described.

The contributions of poetics -- those aspects of linguistic fact and theory that bear on a general theory of poetry, again broadly construed -- to recent work in literary theory are more problematic and controversial. Whether or not one agrees with the proposition implicit in most work holding itself out as literary theory that it materially differs from what was known for the previous half-century as literary criticism, the current work of Derrida, Lacan, and Eagleton, among many others has at its heart the role of language in literary artworks. Poetics can work on the one hand to enrich this work, and on the other to constrain many of the claims that some of its practitioners have made.

Writing in the tradition of the late Roman Jakobson, Paul Kiparsky produced a brilliant and, in the literary community, little-noticed, essay (1973) on poetics asserting that poetry is, at bottom, the repetition of linguistic sames. A trivial case of this kind of repetition is rhyme; a much richer case is parallelism. In a rigorous syntactic analysis, Kiparsky shows how this concept, fuzzily described in most poetic analyses, can differentiate the characteristic practices of poets. For Walt Whitman, Kiparsky shows, the equivalence typical of parallelism exists only for large syntactic units; for Dylan Thomas, that equivalence works from the largest to the smallest units of his poetic language. In order to make this kind of analysis, which is typical of poetics, the student must be able to analyze different levels of syntactic structure and have the theoretical acumen sufficient to see similarities of pattern in poetic structures that do not yield them up easily.

A similarly rich contribution of poetics to literary theory has been the research on poetic meter of Morris Halle and Samuel Jay Keyser (1971) and their co-workers. Under Halle-Keyser theory, an iambic line is metrical if no odd-numbered metrical position is both stressed and flanked by metrical positions that are unstressed; otherwise it is unmetrical. This claim is simple but very strong, and it is borne out in the literature: even allowing for the purported counterexamples raised in the many books and articles that have flowed from this research, only a handful of lines in the entire corpus of metered poetry in English from the Renaissance to the present have been found to violate this rule.

Construction of this theory depends upon the ability to deduce and formalize, just the qualities fostered by training in linguistic theory. The way to this theory is not clear until one abandons the notion of "foot" in English poetry and realizes that there are rules by which syllables or groups of syllables come to constitute metrical positions. Metrical positions, not syllables or feet, are the primes of English metered verse. The theory then does what properly constructed theories are expected to do: predicts what will be a metrical line, rules out on a principled basis possible but unmetrical lines, and makes the most general statement about English meter consistent with the facts.

Training in linguistic theory and its application to poetics also can help students give more critical readings of modern literary theory in general, much of which is based upon its practitioners' views of aspects of language. The project of reader response criticism, for example, was held out by its proponents as an aspect of literary theory, when in fact it turned out to be merely an interesting intuition unsupported either by the facts of language or by what we know about the process of reading. Reader response had a run of about a decade, finally expiring not because it was proven to be wrong (I shall attempt below to falsify a fundamental precept of reader-response theory and to demonstrate the incorrectness of a literary analysis that follows from it) but because it fell out of fashion.

The theory of reader response was summarized by the critic Stanley E. Fish (1972) as follows: "an analysis of the developing responses of the reader in relation to the words [of a passage of literature] as they succeed one another in time.... A reader's response to the fifth word in a line or sentence is to a large extent the product of his responses to words one, two, three, and four." (387-8)

A simple exercise in transformational syntax demonstrates that the second sentence of the foregoing quotation is false. In the sentence "John asked Bill to shave him," the reader responds to the sixth word, "him," as referring to the first word, "John," and not the third word, "Bill," for reasons having nothing to do with the sequence of these words (the reader's response to "Bill was asked by John to shave him" is identical) and everything to do with a relatively complex computation that the reader (or hearer) makes of the structure of this little sentence, a computation that among other things causes him/her to accept the sentence as grammatical even though it appears to violate the rule of reflexive formation (roughly speaking, pronouns occurring after the subject that are co-referential to the subject are reflexive in form). The principle that structure, not sequence, is what counts in syntax is among the first concerns of an introductory course in syntax. Had the generations of English graduate students who studied reader response theory over the ensuing decade studied some syntax first, that theory might have been discarded not because it became unfashionable but because it is in error.

The same kind of analysis, had it been widely available in the literary community, might have ruled out some analyses of reader response by giving a better account of the facts on which they are based. My target again is an analysis by Fish; Fish's work is the object of my criticism here only because he is by far the best of the modern literary theoreticians and his claims are the most coherent. Fish grounds an elaborate account of a reader's putative response to a passage from Sir Thomas Browne's Religio Medici upon the premise that the phrase "That Judas perished by hanging himself" can mean only "the fact that Judas perished by hanging himself." This claim is factually incorrect (compare "That the moon is made out of green cheese is open to doubt"; no assertion of fact is made for either the proposition about Judas or the one about the moon), and so is the structure of interpretation that Fish founds upon this assertion (I have explored this and similar interpretations in more detail in Freeman 1987).

Poetics, as that subdiscipline is practiced in departments of linguistics, thus can be seen to have both a contributory and a constraining effect upon the study of literature. Because of the intensely analytical and highly formalizing habits of mind it induces in students, poetics can provide more and differentiated evidence for critical interpretations. Because of the explicitness that its parent discipline, linguistic theory, insists upon, poetics can provide a principled basis for falsifying statements of literary theory that are wrong, and hence provide stronger arguments for those that are right. Stylistics provides a unified theoretical basis -- the principle that patterns of language have meaning, in both literary artworks and expository prose -- for the two chief concerns of departments of English. Both are essential to the discipline of English, a field in which centrifugal forces are increasing.

These forces have always existed in the field, ever since departments of English achieved something like their present form about a century ago. English departments have alternately embraced and spurned (under various names) composition, rhetoric, philology, and descriptive grammar. Recently, literary theory has demonstrated what appears to be a characteristic of developing fields: they are most exclusionist when they are in the process of developing their philosophy of science -- what counts as evidence, what counts as a claim, what it takes to falsify a claim. This was the situation of linguistics in the 1960's; it is the situation of literary theory today; it may be the situation of composition theory and rhetoric in the 1990's.

Now seems a particularly propitious time for a new synthesis of language, literature, and composition. Theorists of composition have begun to focus on the issue of reception (see Winterowd 1986). In this sub-field, linguists and English scholars have begun to reach out to one another. They have been talking past one another in literary theory, however, notwithstanding the fact that the reader/hearer, the decoder, has been at the center of many literary theorists' concerns. When linguistics began its major theoretical revolution in the late 1950's, it applied a unified body of theory to the production, structure, and reception of language. A similar broadening of theoretical perspective can help to lend more unity to English studies. This kind of theoretical development is a subject with which the field of linguistics has had recent experience and about which it has much of value to contribute.

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APPENDIX 4-M

Teaching Linguistics in an Interdisciplinary Curriculum

by

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Three quarters of a century ago, in 1906, a British Board of Education report commented on the confusion of aims in English Language teaching, citing "the quality of the teaching, the unsuitable textbooks, and the lack of any coherent sense of purpose."[1] Where are WE today? Modern linguistics is still predominantly a graduate discipline for very good reasons: it is highly technical and abstract in its theoretical component; it is highly specialised in its various branches; its claims are under continuous dispute and subject to continuous change; and its applicability to a generalised curriculum is not at all self-evident. But given an educational system that is characterised by the value it places on quantitative returns and practical applicability, the discipline of linguistics must diversify in order to survive as an integral, funded unit of a university. Hence undergraduate teaching. But uneasy is the compromise. Is there a justifiable rationale for the teaching of linguistics at the undergraduate level beyond the spurious need for self-survival? How can the admittedly technical and highly abstruse nature of the discipline be adapted to the needs of an undergraduate curriculum?

In this short presentation, I should like to begin an answer to these questions by sharing with you some of my experience in teaching linguistics in an interdisciplinary department at a four-year undergraduate college. The experimental aspects of the curriculum at the State University of New York, College at Old Westbury, its nontraditional student population, and the quite significant flexibility and freedom I have experienced in developing courses in linguistics over the past six years have caused me to rethink the role of linguistics within a general undergraduate curriculum.

Old Westbury started in the sixties as an experimental, nontraditional college. The four interdisciplinary programs still in existence are the only curricular remains of the initial experiment, but they are still significant. Not only do we not have a linguistics major, we don't have an English one. Students interested in language, literature, history, philosophy, or any other of the so-called 'humanities' fields must choose an interdisciplinary program (actually we have no departments at the College). All the other programs that are not interdisciplinary are divided among the social sciences, the natural sciences, and vocational programs (business and computer sciences, for example). For reasons too complex to go into here, linguistics became

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one of the fields included in my program, called Comparative History, Ideas, and Cultures, although how it should be represented there has been pretty much left up to me to determine.

The past six years, as a result, are littered with the corpses of courses I have brought into existence and then killed in the attempt to respond to the needs of the changing curriculum and the students. Some courses have undergone mutation. Only the introductory survey of the field has remained relatively inviolate: a reflection of its unique stability as the only linguistics course developed with content and textbooks suitable for undergraduates.[2] In the current catalogue, the following linguistics courses are listed in my program: Language and Culture (100 level); Introduction to Linguistics (200 level); Structure of English (300 level); and Development of the English Language and Reading Poetry (both at the 400 level). Since I am the sole linguist and teach literature courses as well, I find it difficult to meet student demand for further courses in socio- and psycholinguistics (not to mention my lack of specialisation in these areas).

Students sign up for all the familiar reasons: they hope to improve their writing skills; elementary education majors specialising in bilingualism have to take linguistics as a certification requirement;[3] business and computer science majors find the course descriptions potentially more useful to their needs than other liberal arts electives like literature or history; others shop simply for the instructor or the hour. Students in any given class will range from first semester freshmen (some with skills deficiencies) to last semester seniors and are generally balanced across age (from 17 to 70), sex, racial and class lines.[4]

In developing courses beyond the introductory survey level, therefore, I face the question familiar to all of us: Is linguistics as we know it in post-Bloomfieldian America, with its emphasis on theory and methodology, a suitable vehicle for the aims of linguistic instruction (whatever they may be) at the undergraduate level? The answer is both yes and no. First, yes.

With so much dissension currently in the field as to the nature or even worth of transformational-generative grammar, an instructor is faced with the choice of teaching the tradition (prescriptively) or taking on the gargantuan task of introducing students to the competing claims of different schools or even the changing perceptions within a school: a task which seems doomed to fail unless students are taught the theoretical bases of each claim. This problem is not new, although it may seem so to a discipline like linguistics that has been associated historically with graduate rather than undergraduate studies. The natural sciences have been facing it, and failing to resolve it, for generations. Science courses for nonscience majors failed (and, for all

I know, are still failing) for one simple reason. In trying to teach scientific 'facts' as currently known, scientists had to teach scientific techniques or methodologies to enable students to understand these facts. We all know what happened in the sixties: defeated by the attempt to make nonscience students absorb the technical information deemed necessary to understand the simplest of scientific concepts, courses became flaky and superfluous. One famous example I remember was a course called Math in the Modern World, taught as THE science requirement for nonscience majors at the University of Massachusetts in the late sixties. Linguistics would do well to learn from this lesson, and so it is the scientific aspect of the discipline that I would like to focus on primarily.

In Structure of English, which I have taught for several years, I take a transformational-generative approach and have used both Akmajian and Heny, and Keyser and Postal as texts.[5] Let me say at the outset that I have not yet managed to get any class beyond the passive voice. I do not now see this necessarily as failure. Akmajian and Heny I found more suited to the advanced student who wants to work at his/her own pace in independent study. Keyser and Postal, though designed for the undergraduate, is hopeless from the students' point of view, being full of not clearly defined jargon of the trade; assuming knowledge of traditional grammar that very few if any students have; made unnecessarily complex by the addition of practically everything they know about the topic thrown into the footnotes. It is nevertheless excellent in its methodological approach. Since it had proved such a stumbling block for students in the past, last year I decided to experiment by throwing out the textbook altogether. The fear that promptly reduced me to quivering idiocy before the semester even began made me realise how much we use texts as crutches rather than aids. I subsequently learnt the students did too. I stole freely from texts and relied on handouts for every class. Instead of assigning readings, I gave out exercises due the next class period, with the philosophy that linguistics is best learnt by doing. The exercises were designed so that students could answer them based on knowledge to date, but they always introduced new problems that the students would have to work out for themselves. Readings WERE put on reserve in the library, but only the most advanced students made use of them.

This is what I learnt. I learnt what students don't know. Brought up to believe in our authority as truth-disseminating teachers, they don't know that the definition of a problem is that we DON'T have the answer. They don't know what the first steps in problem-solving are, how to begin to first recognise and then structure a problem, and are confused and frightened when faced with the challenge of doing so. They can't draw trees because they don't understand the principles underlying the hierarchical organisation and lack the associated skills of generalisation and categorisation. They believe nouns, verbs, prepositions, etc. are arbitrary preordained labels to be memorised by rote along with the vocabulary list. (If you ask them who did the preordaining, they will answer "God" or "the Dictionary," depending on their belief systems.) They don't understand Heraclitus' maxim that you can't step into the same river twice, that language is not static but continually changing. In short, they enter the classroom with all the prejudices and fallacies we despair over when we encounter self-nominated 'experts' on language in the columns of our daily newspapers.

And so I found my focus and approach changing. Instead of worrying about how much linguistics they needed to understand the structure of their language, I found that what was important to the students was their gradual acquisition of problem-solving skills, the ability to think things out for themselves. What was valuable to me was of no use to them unless they could internalise the process of thinking linguistically.[6] In this sense, linguistics is a science and is singularly adapted to the teaching of a scientific approach at the undergraduate level, not least because the data is already in some sense known to the students. And so it doesn't matter if we don't progress beyond passive. The most important lessons I learnt from this experiment were that the aims of our undergraduate courses should be quite different from those of our graduate programs, and that the most difficult barrier we have to overcome is the students' overwhelmingly stubborn resistance to the challenges and responsibilities of thinking for themselves. They'd much rather we, or our textbooks, did it for them.

With respect to our interdisciplinary approach, I have also discovered that students are in fact eager for more courses that will deal with the subjects they encounter in their developmental psych courses, in urban sociology, in political science, and so on. Which brings me to the other side of the question. Except for the scientific aspects of linguistics I have outlined, I don't think that the theoretical and technical aspects of the discipline as they have been practised in America in this century, following the Bloomfieldian emphasis on methodology and analytical technique, are suitable for undergraduate study. The fears expressed of watering down or distorting the field come, I think, from our own bias toward the theoretical. The other strain of linguistic study, epitomised for example by the generalist, cross-disciplinary interest of Sapir, in Jespersen's *Mankind, Nation and Individual from a Linguistic Point of View*, or Jakobson's monumental studies, needs to be developed and exploited for the more practical needs of our undergraduate students. Linguistic knowledge, after all, is coming increasingly to the forefront of work in many areas and disciplines in the twentieth century. Psychologists are exploring patterns of language behaviour in patients with specific mental disorders, neurosurgeons are making new discoveries every day about the language functions of the brain, computer scientists are delimiting the boundaries between natural and artificial languages. The list could go on and on. Unless we adapt our teaching methods and materials to prepare the students who will very likely end up in such fields, we will be bypassed by the very core of what makes linguistics alive today. Applications of linguistic knowledge in the teaching of English, of composition, of foreign languages, of literature, need to be supplemented with work being done in sociolinguistics and psycholinguistics to produce a range of courses suitable and valuable for the undergraduate curriculum. Perhaps then I won't be the sole linguist in my program.

Linguistics, unlike any other discipline in existence today, is in the unique situation of being claimed as a member of each of the traditional three branches of knowledge: the humanities, the social and the natural sciences. It has the potential of becoming central to the core of a general studies curriculum. It needs only the linguists to do it.

What I have said in this presentation is not particularly new--it has been said before. But it would indeed be a shame if what was said in 1906 and is being said again here today is said in another 75 years because we were not committed to act. The generalist demands made upon us by the inherently interdisclipinary nature of the undergraduate curriculum mean that we cannot do it alone. The major frustration I feel at Old Westbury is the lack of suitable materials in areas I do not have the specialisation, time, or resources to develop. I am surely not alone. It seems to me, therefore, highly appropriate that an organisation like NYSCOL could provide a valuable service to the teaching of linguistics at the undergraduate level by sponsoring an editorial committee for a general series of readings for specific courses beyond the introductory survey.[7] If each of us were prepared to devote a little of our time within our own specialisations, we could perhaps achieve together what is impossible alone.

Finally, we need to remember what we are about: what our 'coherent sense of purpose' is in developing an undergraduate linguistics curriculum. After four years in a philosophy department in an English University where we as undergraduates were literally outnumbered by our instructors two to one, the chair of our department, the philosophy professor, met with us for the last time before graduation. To our collective astonishment, nurtured as we had been on the mysteries of Greek philosophy, on Spinoza, Berkeley, Kant, and so on, she said: "The one thing I want to be sure about is that as graduates of this university you do not go out as naive realists." How much more we had progressed beyond that point, we thought! But, over the years, I have realised just how wise she was. It didn't matter in the end which philosophy we embraced, whether existential or Marxist, rational or empirical: in a world dominated by naive realists, we were to be the checks and balances, living proof that humans are capable of more than an unthinking acceptance of the world around us. And so, as I think of our role as teachers of linguistics, and remembering my philosophy professor, I suggest that in a world filled with nonsense about language, it is not an ignoble goal to produce graduates, wherever they go and whatever career they choose, who can separate fact from fantasy and who recognise the central and integral role of language in their lives.

REFERENCES

[1] See Randolph Quirk and H.A. Smith's "Introduction" to their edited volume, *The Teaching of English*, London: Oxford University Press, 1959, pp. 1-2.

[2] A general, undergraduate course may be said to have reached maturity when a range of textbooks is available to choose from and their content pretty much standard. This is true only for the introductory survey course in linguistics, an indication that linguistics offerings in general at the undergraduate level are still relatively new.

[3] I find it somewhat ironic that only the bilingual and not the general elementary education majors have to take a linguistics course under New York State Certification requirements. Furthermore, the bilingual education majors are the ONLY group of students at Old Westbury who have such a requirement.

[4] Since none of the courses offered under linguistics carry a linguistics prerequisite, each course must be designed with the expectation that most students will have had no prior course in linguistics. Class size for each course is 30 (a result of classroom space not pedagogical thinking). Lower division courses tend to fill each semester; despite the fewer numbers of students taking linguistics courses at the upper division level, the demand for at least one 400-level course each year is steady. The fact that Old Westbury attracts students of every age and from very varied backgrounds, part-time and full-time for both day and evening classes means that Old Westbury faculty experience the full range of both traditional and nontraditional students in all their courses.

[5] Adrian Akmajian and Frank Heny, *An Introduction to the Principles of Tranformational Syntax*, Cambridge: M.I.T.Press, 1975; Samuel J. Keyser and Paul N. Postal, *Beginning English Grammar*, New York: Holt, Rinehart and Winston, 1978. Akmajian and Heny, like most transformational-generative texts, was designed for graduate study, but is clearly enough written and presented that the more advanced

undergraduate student can work through it easily. The Keyser-Postal text is the only one I am aware of in syntax designed specifically for undergraduates.

[6] Lest readers run away with the idea that Old Westbury students are less competent than their colleagues elsewhere, let me hasten to point out that my findings are rather an indictment of the American education system than of the students' individual capabilities and potentialities. The preparation and ability of students in linguistics classes at Old Westbury tend to vary as much as they themselves do. One encouraging result of the experiment was that the level of achievement on the final examination was much higher for more students than in previous years.

[7] That previous attempts at producing a general series of readings has not worked well in American publishing should not deter such an attempt. If teachers of linguistics at the undergraduate level are beginning, like me, to find the need for more courses beyond the introductory survey, then the demand exists for suitable texts. Furthermore, the material currently available in linguistics studies on certain general topics needs to be recast in a clearer framework for the undergraduate reader. The British publications that exist, such as the Methuen New Accents series, Andre Deutsch's The Language Library, or Longman's The English Language Series are superior in this respect and have no real American counterpart. Adrian Akmajian's suggestion of a series of national conferences to develop the teaching of linguistics at the undergraduate level would be a useful preparatory step.

APPENDIX 4-N

Teaching Linguistics to Non-Linguistics Majors

by

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The views expressed are those of the authors and do not necessarily reflect the position of the LSA or the National Endowment for the Humanities.

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PREFACE

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INNOVATIONS IN LINGUISTICS EDUCATION 3.1 (1983), 129-134

1. Adjusting to the Audience

A large number of undergraduate linguistics courses at American universities are populated by students in other fields whose sole reason for enrolling is to fulfill a requirement for their respective programs. These non-majors are not likely to pursue linguistic analysis or argumentation for its own sake. There may, in fact, be only one or two students out of several classes who become sufficiently serious about linguistics to complete a degree in it. When the instructor directs the course chiefly at such individuals, the others find the material dry and overly technical, and are not likely to take further linguistics courses on an elective basis. In these times in which the survival of programs and offerings increasingly depends on healthy full-time enrollment figures, linguists can ill afford to alienate students with courses that are uncompromisingly theoretical.

There are other difficulties with the 'no concessions' approach. Particularly in survey courses, the shortness of the single academic term dictates covering the core areas in so superficial a manner that even highly motivated students cannot genuinely achieve the desired basic literacy. Moreover, take-home examinations, though appropriate for more challenging courses, are not always practical. However, since in-class exams must be less demanding, instructors who use these tend to find themselves reassuring worried students that all they need to know about X is Y. If X, for example, is 'transformations', Y may be 'operations which convert underlying structures into surface structures'. This trivializes the learning task by encouraging rote memorization.

I have suggested that a linguistics course which is more than moderately technical will not 'reach' the majority of its (undergraduate) non-major audience, and can ultimately bring about its own demise. However, I believe it is indeed possible to impart to the average non-major a genuine sense of linguistics and what it is all about, without necessarily making the course as high-powered as beginning graduate-level courses. In the following sections, I will suggest that students should be encouraged to examine data until the patterns emerge, to gather their own data, and to explore topics that generally prove to be popular (e.g. dialects, language acquisition, sex differences in language).

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2. Teaching Techniques

Two techniques which have helped me make linguistics less intimidating to non-majors in my classes involve reducing the amount of formalism, and defining new concepts by example (§2.a and b). At the same time, outside projects can raise the level of interest and participation, while students' analytic skills can be sharpened through problem-solving (§2.c).

2.a Minimizing Formalism

Many experienced linguistics instructors find themselves eliminating from Introduction to Language concepts they once never doubted should be included: phonological derivations, syntactic derivations, and comparisons between schools of thought, for example. This phenomenon is due at least as much to the difficulties students have in working with such concepts after brief exposure to them as it is (in some cases) to their becoming outdated. Even the interpretation of something as seemingly straightforward as plus and minus feature notation can mystify students. So too can the formal statement of a transformation. Since the verbal expression of transformations often reduces the latter difficulty, in some cases at least the stumbling block is little more than the formalisms themselves.

Sometimes eliminating a problematic formalism can bring about unanticipated benefits. When several of my classes had difficulty with phrase structure (PS) rules even after I had stopped using parentheses and curly brackets, I stopped using PS rules entirely. My next group was then tutored more thoroughly in the substitution and movement tests for constituency. Once comfortable with these, they learned how to assign phrasal and lexical category labels to the constituents they had isolated. Ultimately, they could draw simple trees. Because I could no longer rely on PS rules to reveal possible interrelationships among constituents, I had to concentrate more on getting students to discover constituent relationships through their own analytic techniques. Thus by eliminating what amounted to something the students found useful but didn't really comprehend, I perhaps brought them to a deeper understanding of English sentence structure.[1]

2.b Defining by Example

Linguistics instructors are sometimes surprised at how difficult it is for some students to comprehend technical terms. I have found that introducing a concept by way of examples, chosen in advance so that problematic ones can be edited out, offers several benefits. First, it encourages students to try to come up with their own definition.

Second, if the term is not introduced until students have seen the point of the examples, they will find it more necessary and meaningful. Third, an array of examples illustrating a single concept is not unlike the data of a problem set. We might regard the items of the set, either individually or together with other items, as illustrating particular concepts (e.g. reduplicative prefix, or minimal pair). When well-chosen examples are presented in class, they may help students attain the kind of directed thinking--focusing only on what is relevant--that is necessary for problem-solving. This is especially so when more subtle examples are included for discussion.[2]

2.c Projects and Problem-Solving

One way to raise students' level of personal involvement and interest is to direct them in small field projects. This allows students to see confirmed certain generalizations from lectures or readings. A simple project can help them discover for themselves that, for example, a single speaker's pronunciations of the same word will differ, depending on the style level. Projects are particularly worthwhile when the results are not what the investigators expect, for they are then led either to revise their hypothesis or sharpen their methodology, or else to question what others have had to say on the subject (see §3.c for a case in point).

A skill useful for analyzing data collected for a project is the ability to solve traditional linguistics problems. Linguists generally agree that problem-solving is worthwhile because of the conceptual skills it teaches. When students work several problems of the same general type (e.g. three or four illustrating different types of natural phonological classes), they see that they must view each set in its own terms, and remain flexible and inventive in their strategies. Since beginners rarely achieve this initially, their classical errors and rococo solutions can generate useful discussions or handouts.

3. Selected Subject Areas

I have suggested that data-oriented problems and projects have a place in beginning linguistics courses. In this section I shall focus on a phonetics problem and sociolinguistics project I have used successfully (§3.b and c), as well as a few subject areas I have found to be effective in Introduction to Language and Language and Society.

3.a Areas of Special Interest

Students who take only one or two courses in linguistics are likely to be most receptive to topics that touch on their lives in rather obvious ways. Comments on course evaluation forms for Introduction to Language frequently make enthusiastic reference to animal communication, language and the brain, language acquisition, regional dialects, Black English, language and the sexes, and language and power. Students can be given a voice in deciding which of these topics to include.

A worthwhile opening topic in any linguistics course with no prerequisite is misconceptions about language and language use. Each semester, on the first day of class, I have the students fill out a true-false questionnaire.[3] And, term after term, they are surprised to find out that animal language is NOT on a par with human language, or that there are no natural languages that have only a few hundred words, or that young children do not particularly benefit from native language instruction. It can, then, be equally as important to touch on topics which students THINK they know something about as topics which they admit they know nothing about.

3.b Articulatory Phonetics

In introducing students to phonetics, perhaps the most difficult task is weaning them from English orthography. 'Sounds, not letters' is often a futile cry because in some students' minds, sounds simply ARE letters; they do not seem to grasp the significance of demonstrations to the contrary. Still, most students eventually do, and in this regard I use a problem that has been fairly effective. First, students list each letter of the English alphabet. Then for each letter, they give examples of words which contain it. Each word must represent one of the letter's different pronunciations, alone or in combination with other letters. To each unique sound students must assign a unique and made-up symbol. Finally, they try to describe, in ordinary terms, the physical production of each sound. Thus in addition to showing the lack of simple correspondence between letters and sounds, the exercise motivates the need for the symbols and especially the vocabulary of phonetics. A time limit--say, two hours--is advisable, as is a ban on textbook or dictionary use. Students who take the assignment seriously should experience success mixed with frustration, and will thus be grateful for the answers that articulatory phonetics provides.

3.c Language and Society

In a beginning course on sociolinguistics (often called Language and Society) it is usual to focus on language variation, social variation, and their interrelationships. One topic which turns up in the first or second week of most elementary linguistics courses is prescriptivist notions of 'ungrammaticality'. Prescriptivism has special relevance to Language and Society because it relates to, and therefore leads naturally to discussions of, a number of other sociolinguistics topics: attitudes toward language, standard and nonstandard dialects, style level, regional dialects, and language change, particularly language change in progress. For this reason I give special attention to prescriptivism at the beginning of the term, more so than I would if I merely wanted students to examine and re-evaluate their views of 'right' and 'wrong' with respect to language.

An excellent way to increase students' awareness of variation in language is to have them carry out small field projects. Students tend to view projects positively, and generally do well with such topics as language used by or about women, or the manipulative language of advertising. When the class is small enough, members can present their findings. This shifts the rôle of 'teacher' away from the instructor, allowing students to learn from one another.

As stated earlier, projects sometimes have unexpected outcomes. A student of mine once chose an exercise in casual phonology suggested by Ann Zwicky in her "Styles" article in Shopen and Williams, *Style and Variables in English* (Winthrop 1981). The procedure was to ask several speakers to count from 65 to 85, and to note the various assimilations in the ten pronunciations of the word *seventy*. The student reported that she did not expect to find anything she did not already know (i.e. she did not expect to find variation). She was therefore quite surprised to distinguish five assimilated forms of *seventy*, and was further startled to discover that they all sounded quite natural to her.

Clearly, this student's sensitivity to phonological variation increased as a result of this project. So, apparently, did her subjects'. All were surprised when she told them what she had heard. One participant, she reported, "even denied that that was possible, as he 'never mispronounced words'". Her conclusion:

> ...this exercise not only made me more aware of the degree of variation allowed in my speech community... but also, there are now six other people listening for phonological differences in the speech they hear around them, not for the purpose of correction or changing anyone's speech patterns, but just for curiosity's sake and for the fun of it.

Through appropriate outside assignments, then, students put new knowledge to use, and can experience the excitement of sharing that knowledge with others.

4. Conclusion

There are some colleges and universities in this country in which linguistics does not enjoy a positive image. This is partly due to the number of students who must struggle through points of linguistic theory which they will promptly forget once the examination or course is over. However, instructors can make linguistics courses primarily serving non-majors more attractive by omitting certain topics, and incorporating others which are perhaps less central to the concerns of linguistic theory, but more interesting and useful to the non-specialist. Since linguistics overlaps with a number of disciplines, it both broadens and strengthens the background of students in linguistics-related fields. And the practice of viewing language phenomena analytically transfers well to areas which require the same type of thinking, such as mathematics or computer science. Linguistics courses tailored to the non-major can be just as challenging as those that are not. The type of challenge in the former case, however, is more appropriate to the audience, and is therefore more directed and meaningful.

NOTES

*An earlier version of this paper was presented at NYSCOL XI. I wish to thank Deborah Schaffer and Rachel Schaffer for their comments on that version.

[1] To be sure, I had already eliminated the overall organization of a transformational grammar, derivations, and was saying rather little about transformations. Certainly, someone teaching these notions could not sacrifice phrase structure rules.

[2] Whenever possible, I use 'live' data gathered from everyday conversation, television, radio, and the like. Students find the data more interesting and memorable, and on occasion bring in their own examples from these sources.

[3] The questionnaire is based on that in Geoghegan *et al.*, *Ohio State University Language Files*, Advocate Publishing Group, 1979 (revised, 1982).

APPENDIX 4-O

The UCSC **Linguistics** Major

by

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The views expressed are those of the authors and do not necessarily reflect the position of the LSA or the National Endowment for the Humanities.

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Jorge Hankamer

0. Introduction

This paper is a descendant of a paper titled "The UCSC Undergraduate Program in Linguistics", which was presented at the Princeton Conference on Linguistics in the Undergraduate Curriculum, Princeton University, March 6-8, 1987. The revisions are fairly radical. The Princeton paper contained two sections which have been omitted entirely from this paper, one on the development of the UCSC Linguistics program and one on the development of undergraduate Linguistics programs in general. The Princeton paper was largely about how the program in Linguistics at UCSC was developed. This paper focusses on the nature of the UCSC Linguistics major.

The UCSC undergraduate program in linguistics has drawn attention for two reasons. One has to do with the nature of the program itself: while a relatively small program (four faculty, increasing to seven) at a small institution (8,000 students) offering a rigorous program in linguistic theory with almost no frills, it has been able to attract respectable numbers of students and has gained a reputation for quality both at UCSC and elsewhere. The second has to do with its history. The program was near extinction in 1980, and five years later was healthy and growing, adding new faculty and preparing to launch a graduate program.

The purpose of this paper is to describe the undergraduate major in Linguistics which is at the heart of the UCSC program, explain the pedagogical philosophy of the program, and discuss what it has to offer to students in the program and the university as a whole.

1. Background and History

1.0 UCSC

UCSC is one of the smaller campuses of the University of California, with a faculty of about 400 and a student body of 8,000 undergraduate students and 600 graduate students. The academic calendar is based on the quarter system, with three ten-week quarters making up the academic year. Most courses are one-quarter courses. All courses are five units, the standard load for a student being three courses per quarter. The standard teaching load for faculty in our division is five courses per year.

Academic requirements of all students are the completion of an approved major and satisfaction of general education requirements, which involves taking a prescribed balance of lower division courses across disciplines. A total of 36 courses is required for graduation.

Departments set the requirements for their majors, but all programs require a comprehensive examination or senior thesis.

Linguistics at UCSC is in the division of Humanities. The program currently has seven faculty, about forty-five undergraduate majors, and three graduate students.

1.1 History of the Program

There has been a program in Linguistics at UCSC since the founding of the campus. Bill Shipley is a charter member of the UCSC faculty, coming to UCSC from Berkeley in 1968. During the early seventies, the program was small but fairly vigorous, and had a couple of junior faculty of some national prominence. They were lost, however, and toward the end of the decade the program was weakened and threatened with disestablishment. The UCSC Chancellor in fact announced a decision to close the program.

Despite its small size and apparent vulnerability, the program turned out to possess one vital resource: the Linguistics majors, though few, were a force to be reckoned with. They liked linguistics a lot, and they stormed into the offices of deans and pounded on desks, tracked administrators and influential faculty members down in coffee shops, wrote angry letters, and generally made pests of themselves. The miracle is that it worked. The administrators changed their minds.

The chancellor then announced that if the program was not to be trashed, it would have to be supported. He allocated one new hard-money FTE to the program, to bring the total to four. The chancellor's reasoning was that to have a chance of succeeding, a program needed a minimum of four FTE in order to have the critical mass to cover essential teaching in the discipline and provide enough intellectual stimulation and cross-fertilization to produce useful research.

In 1979-80 a search was conducted to fill the new hard FTE. The result of this search was that I was hired to come in as chair in 1980-81. At this point the program had four faculty FTE, seventeen undergraduate majors, and a curriculum that was weak in central areas and didn't serve very many students beyond the majors.

There was steady growth during the next five years, with an increase in majors to about forty, an increase in faculty to six FTE, and a corresponding enrichment and stabilization of the curriculum.

In 1980-81 and 1981-82 Geoff Pullum and Judith Aissen were added to the faculty.

During the three academic years 1980-83, the curriculum was modified to provide more lower-division service courses, extended to include courses in computer literacy and programming, and professionalized at the top end so that students preparing for graduate school received instruction in current theoretical frameworks in syntax and semantics. A major in Language Studies was initiated, which involved a significant linguistics component and caused a surge in enrollments in Linguistics courses.

At this point (during 1983-84), the program underwent an external review. The review committee, consisting of Guy Carden as chair, Charles Fillmore, and Barbara Hall Partee, found the program sound and pronounced it one of the best undergraduate linguistics programs in the country. The committee also recommended expansion of the faculty and the initiation of a graduate program.

The UCSC administration responded by immediately allocating one new hard FTE to Linguistics, followed shortly by a soft FTE which has continued on a one-to-three year basis to the present time.

The two new faculty positions (filled by Bill Ladusaw and Aditi Lahiri) allowed the development of the semantic and phonological components of the curriculum to a state of acceptable coverage, and at the same time allowed us to schedule multiple offerings of large-enrollment lower-division courses. This resulted in a net increase in enrollments.

Enrollment growth is charted below, alongside faculty FTE (including full-time visiting positions, but disregarding leaves and part-time visiting faculty, which roughly cancel each other):

year	faculty	majors	enrollments
80-81	4	17	294
81-82	4	20	487
82-83	4	25	736
83-84	4	30	754
84-85	6	35	1122
85-86	6	40	1239

Over a five-year period, enrollments quadrupled while majors doubled and faculty increased by half.

On the basis of the healthy enrollment picture, the external review committee's recommendation, and the rising visibility of the program due to the acquisition of new faculty, the administration was willing to support our proposal to establish a Ph.D. program (in fact, the dean of our division asked us to do it). This entailed further faculty expansion, beginning with the allocation of a sixth hard FTE (filled in 1986-87 by Sandra Chung). The new graduate program was approved and launched in fall 1986 with an initial graduate class of three. In connection with the development of the graduate program, we will make three new hard appointments in the next three years. By 1990 the faculty size will be nine permanent faculty and one visiting position, the graduate student body will number fifteen to twenty, and there will be fifty to sixty undergraduate majors.

2. Program Description

2.0

This section presents a description of the Linguistics major at UCSC. I first discuss the focus and pedagogical philosophy of the program, then present a sketch of the curriculum and a detailed description of the core courses. Finally I discuss some special features of the program and its integration with the new graduate program.

2.1 Focus and Philosophy

The focus of the UCSC program is theoretical and descriptive linguistics. This encompasses semantic, syntactic, morphological, and phonological theory, and includes a commitment to natural language description and analysis, typology, and historical linguistics. Psycholinguistics, sociolinguistics, ethnolinguistics, computational linguistics, and applied linguistics may be pursued to varying degrees because of special interests of individual faculty or by taking advantage of offerings in other departments.

Doing Linguistics

The goal of our program is to teach undergraduate Linguistics majors to "do linguistics", i.e. to engage in the activities of investigation and analysis of linguistic structures which constitute the craft of linguistics as currently practiced. If our program is successful, it should provide each student with an understanding of the methods and results of linguistic investigation, an ability to read and critically evaluate current work in at least one major area, and the ability to conduct and write about investigations in linguistic description and theory.

In trying to teach undergraduates to do linguistics, we adhere to the following four principles as guides for the design of the core curriculum:

(1) Focus

> An undergraduate linguistics program should be focussed. It should have specific areas of strength, and the major curriculum should be coherently designed to take advantage of them. Especially in the case of a small program, depth should be established first, breadth later.

(2) Professionalism

> An undergraduate linguistics program should be professional. All students in the

major should master the central and fundamental concepts and techniques of the discipline. Advanced students should have the opportunity to approach the frontiers of knowledge, and should be trained in the methods of investigation currently being used to advance those frontiers.

(3) Rigor

An undergraduate program in linguistics should be rigorous. It should demand commitment, intelligence, and work from the students. There is no point in encouraging stupid or lazy students to do linguistics, there's not enough money in it for that.

(4) Fun

An undergraduate program in linguistics should be fun. Actually, all learning should be fun. People learn best when there's some fun in it, and we are blessed with a discipline which people come to mainly for fun, so we might as well capitalize on it.

None of the above should need to be said specifically about linguistics; all university academic programs should have these features. We are just saying that linguistics should not be different from other respectable academic programs.

The design and development of the UCSC undergraduate program in linguistics is based on these four principles. They have guided faculty development, curriculum design, the nature of individual courses, and the general atmosphere in which the study of linguistics is pursued at UCSC.

2.2 Curriculum and Requirements

A brief sketch of the curriculum:

Lower Division

Introduction to Linguistics	(50)
Languages of the World	(60)
Modern English Grammar	(55) (3x)
Language, Society, and Culture	(40)
Nature and Language of Computers	(150)
Phonetics	(40) (3x)
Syntax 1	(40) (3x)
Semantics 1	(25)

Upper Division

Phonology 1	(20)
Phonology 2	(10)
Phonology 3	(5)
Morphology	(20)
Syntax 2	(25)
Syntax 3	(15)
Semantics 2	(10)
Semantics 3	(5)
Government and Binding Theory	(10) (1/2)

Generalized Phrase Structure Grammar	(15) (1/2)
Relational Approaches to Grammar	(5) (1/2)
Lexical-Functional Grammar	(10) (1/2)
Topics in Syntax and Semantics	(5)
Topics in Phonology and Morphology	(5)
Field Methods (two quarter course)	(5) (1/2)
Indo-European	(30)
Language Change	(20)
Sociolinguistics	(20) (1/2)
Psycholinguistics	(20) (1/2)
Natural Language Processing	(15)
Topics in Computational Linguistics	(15)
Structure of Spanish	(15)
Structure of French	(15)
Structure of Japanese	(15) (1/2)
History of Linguistics	(15) (1/2)
Mathematical Foundations of Linguistics	(15) (1/2)
Research Seminar	(5)

For each course, the number of students typically enrolled is given in parentheses. Courses offered more or less than once yearly are noted (3x, 1/2).

The lower division courses divide into two categories: general education (Introduction to Linguistics, Languages of the World, Modern English Grammar, Language Society and Culture, Language of Computers) and disciplinary introductions (Phonetics, Syntax 1, Semantics 1). The general education courses are designed primarily for non-majors; they have no prerequisites and do not serve as prerequisites for any upper division courses. They all satisfy campus breadth requirements. The disciplinary introductions also have no prerequisites, but they are prerequisites to the upper-division sequences and are required of Linguistics majors.

Linguistics majors are required to take Phonetics, Phonology 1 and 2, Syntax 1 and 2, Semantics 1 and 2, and a course in historical linguistics. They are required to take five further upper-division electives, chosen from courses offered in Linguistics and selected courses offered in other departments (Psycholinguistics, Language Development, Language Acquisition, Human Information Processing, Programming Language Syntax and Semantics, Philosophy of Language).

The only other requirement is submission of a senior thesis or project, or successful completion of a comprehensive examination. The comprehensive examination is offered once yearly, in the spring, and consists of a five-day take-home set of problems in phonology, syntax, and a special field. Senior theses and projects must be proposed a year in advance of expected graduation, approved by the department faculty, and accepted by an examining committee.

2.3 Discussion of the Major Curriculum

The undergraduate major curriculum is built around three fundamental sequences: Phonetics, Phonology 1, Phonology 2, Phonology 3; Syntax 1, Syntax 2, Syntax 3; and Semantics 1, Semantics 2, Semantics 3. We are in the process of adding a two-quarter sequence in morphology. The nature and content of these sequences is discussed below.

Majors are required to take all but the last level in each of these sequences, plus at least one course in historical linguistics and five further electives. We have considered requiring that one of the electives be an advanced course in one of the central areas, but since almost all majors do this anyway, it seems unnecessary to require it.

One point where our curriculum differs from that of most undergraduate programs is that the introduction to linguistics course is not required of majors, nor is it a prerequisite for any advanced course. The reasoning behind this is that the usual introduction to linguistics achieves so little in any particular area that most of it has to be done over in the real course on the subject anyway; and the absence of the prerequisite in other courses makes the entry courses to the three central sequences all recruitment points for the major. We have found that little is sacrificed by this move: Syntax 1, Semantics 1, and Phonetics function quite well without an introduction to linguistics behind them. On the other hand, our ability to draw prospective majors to the program and to raise enrollments in general is considerably enhanced.

Core Sequences

The prerequisite structure in the core sequences is simple. In each sequence, each course after the first presupposes the preceding course in that sequence. In addition, for n greater than 1, Semantics n presupposes Syntax n-1.

The Syntax Sequence

The syntax sequence is the backbone of our program. It is in these courses, especially Syntax 1 and 2, where the learn-by-doing method is most fully developed.

Syntax 1

Syntax 1 is a lower-division course without prerequisites. Its population is approximately one-third linguistics majors, one-third language studies majors, and one-third others. Syntax 1 is offered three times a year (one offering every quarter) and draws about forty students each time.

Syntax 1, officially titled "Introduction to Transformational Grammar", is really an introduction to linguistic investigation. The subject matter is English syntax. There is no text, no reading, and no lecture. At the first class, the students are told what a generative grammar is and introduced to the notion of grammaticality. They are given some set of simple sentences and told to go home and write a grammar to generate them. At the next class competing grammars are assessed and questions of overgeneration and undergeneration are brought up. The idea of choosing one solution over another based on arguments is introduced. After that the process is repeated in something like the following sequence: (a) facts are presented, in the form of grammatical and ungrammatical sentences or readings of sentences, which are not accounted for by the grammar and/or theory of grammar most recently adopted by the class; (b) the assignment is to revise the grammar and/or the theory of grammar to account for the given facts; (c) the discussion in the following class concentrates on proposals and arguments, and leads to a new agreement about the grammar and the theory of grammar; (d) new facts are presented.

An assignment is given at the end of every class, and is due at the next class. The papers are read, commented on, and returned at the following class. In addition there are two rather demanding take-home examinations, each lasting about a week. Students are free to work together, as long as they write up their solutions independently.

This regimen generates a surprising amount of written work. Students in syntax 1 turn in an average of approximately 100 hand-written or double-spaced typed pages during the course. Some students turn in far more.

By the end of the course, they know a good deal about the syntax of English. They have developed the standard apparatus of transformational grammar, and the beginnings of a theory of grammar. And they have invented, criticised, discussed, accepted, and rejected hundreds of arguments.

Syntax 1 is intense, and far from easy. The students, however, appear to find it rewarding. They realize that they are learning the fundamentals of a discipline, and they like the challenge of figuring things out for themselves. It also turns out to be fun. A significant percentage of conversions from other majors to Linguistics take place as a direct result of this course.

Syntax 2

While a majority of Syntax 1 students are non-majors, 90% of Syntax 2 students are majors in Linguistics. This course is offered once a year, and is taken by about 25 students. Syntax 2 establishes the foundations of standard theory and continues the exploration of English grammar begun in Syntax 1. Students in this course hand in regular homework assignments at each class period plus two take-home examinations, and write at least two squibs. Average number of pages handed in per student during the quarter is about 150. There is little or no reading.

The pattern of work follows closely the pattern established in Syntax 1. The course is driven by the homework assignments, which require the students to propose revisions to an existing grammar of English and theory of grammar; the proposed revisions are subjected to scrutiny in class discussion, and arguments for and against particular solutions are brought forth and evaluated. Most of the work involves pursuing lines of investigation and theoretical proposals developed by the students themselves.

Syntax 3

Syntax 3 is taken almost exclusively by linguistics majors. It has been run as a "topics" course, taking up whatever the instructor wanted to do, usually in consultation with the students. Topics addressed have included anaphora, GPSG, a survey of modern theoretical frameworks, and others. The work for this course usually involves substantial reading, some problems, and squibs and term papers. The average number of pages written for this course is probably only about 50.

The sequence of learning is important. Note that the sequence is (1) doing syntax; (2) writing; (3) reading. Not the other way around.

At certain points in this sequence it becomes appropriate to insert lectures on the history of linguistics, to introduce alternative proposals from the literature, to present arguments of historical or current interest. This is done very sparingly at the beginning, and more and more toward the end of the sequence. Thus the sequence provides a history of the field as well as training in its fundamentals.

The Semantics Sequence

The other sequences have a similar design. Semantics 1 is a course which introduces the fundamental tools and concepts needed to investigate meaning relations in natural language; Semantics 2 develops an understanding of central issues in natural language semantics and the ability to investigate and write about semantic problems; and Semantics 3 takes on an advanced topic in semantic theory (usually including a thorough introduction to model-theoretic semantics) and involves learning to read the literature.

Semantics 1 is taken by a mix of students, about half of which are Linguistics majors. Semantics 2 draws mostly Linguistics majors, but also a few computer science majors. Semantics 3 is almost all Linguistics majors.

The Phonology Sequence

Phonetics is a course in articulatory phonetics and phonetic representation. It is required of majors in Linguistics and majors in Language Studies, who make up almost the whole population in the course.

Phonology 1 teaches how to do phonology, concentrating on segmental representations and rules;

Phonology 2 introduces nonlinear approaches and develops writing through problem sets, squibs, and term papers; Phonology 3 is an advanced topics course in phonological and morphological theory, involving extensive reading in current literature as well as writing. The phonology sequence makes greater use of reading than the other two, with the reading of recent articles a major feature both of Phonology 2 and Phonology 3.

Phonology 1, 2, and 3 are taken almost exclusively by Linguistics majors, though occasionally Language Studies majors turn up in Phonology 1.

Important features of the core curriculum

These core sequence courses are focussed, professional, rigorous, and fun. The students work very hard, and they love it. At the lower levels they are fascinated by the challenge of learning to do linguistic investigation; in the intermediate levels they experience growing control and power, while they are lured on by the thrill of discovery; at the advanced levels the best of them are drawn into an engagement with current issues and developments, and weaker ones at least see something of the achievements of the discipline. No very weak students are around anymore.

Two features of our pedagogical philosophy, especially as applied to the teaching of syntax, engendered extensive discussion when this paper was presented at the Princeton conference. These were the no-textbook approach (more accurately, the fact that we explicitly discourage reading during the first quarter and make little use of it during the second quarter), and the particular emphasis on learning by doing, to the extent that we never tell students in those early courses anything about results in the field until after the students have discovered them for themselves.

The reason for the ban on reading is that it is the simplest, cleanest way to get across to students that they are learning a craft. It is a complex, difficult, intellectual craft, but it is a craft. It is not the case, as one might think, that all they get out of these courses is empty methodology. They finish Syntax 2 with a very firm understanding of the major results of syntactic research through the sixties and seventies, and know a good bit of the history of that research. Not only do they know the major results but they know what evidence the results are founded on, and quite a lot about the arguments that were put forth for and against various hypotheses. When confronted with a new proposal they know how to evaluate it. When they begin reading things, which they do toward the end of this sequence, they know how to read critically and are not inclined to accept anything that is not adequately supported by evidence.

We have nothing against reading per se. Learning to read the literature in the field is an important part of becoming a linguist, and one might view our first two quarters of syntax as training camp for getting ready to read. In individual cases, as it becomes clear that a student has reached the point where a particular article or book would make sense (as, for example, when a student's squib or homework paper replicates some discovery or argument, or where something in the literature would illuminate a question the student has raised), we direct them to appropriate reading. Especially in the second quarter, student papers are often handed back with a copy of a paper or a journal reference attached, without further comment. The principle is not that students should not read, but that they should not read too soon. I would not want a student to read about a result that the student could just as well discover.

The second issue, closely related to the first, concerned a worry that students in our first two quarters of syntax are not introduced to "current" issues and theories. They hear nothing of government and binding, there is little or no discussion of innateness and learnability, and only toward the end do they begin to get glimpses of universal grammar and parameterization, in connection with the study of island constraints.

There were people at the Princeton conference who thought that this was too slow. The issues and results of current theory must be introduced very early in the first course, they said. I did not understand the reasons for this impatience.

Beyond the core

The core sequences provide a foundation for further study in the central areas, and for work in several other subdisciplines.

The most popular advanced field among our students is syntax. Current frameworks of the eighties (GB, GPSG, RG, APG, LFG) are introduced in advanced courses which have syntax 2 as a prerequisite. Some students focus on phonology or semantics in advanced work. Our course offerings are less in these areas, but sufficient to bring students to the point of being able to begin original research projects. Students may pursue such projects as individual studies courses or in the research seminar.

Other aspects of linguistics available for advanced study include advanced phonetics, language change, typology, morphology, the structure of several particular languages (French, Spanish, Japanese), computational linguistics, and field methods.

Students interested in psycholinguistics may take courses in language acquisition and development, human information processing, and psychological approaches to linguistics from the Psychology department. We have a number of double majors in Linguistics and Psychology.

Students specialize in computational linguistics either by doing a double major in Linguistics and Computer Science or by majoring in one field and doing a minor in the other.

Quite a few of our majors are interested in some aspect of applied linguistics. We provide no courses in applied linguistics, but we encourage students with applied interests to seek relevant practical experience, which may be structured as a senior project satisfying the graduation requirement. Students have taught in bilingual classrooms, worked with hearing-impaired children, taught English as a second language, designed second-language learning experiments, written computer-aided instruction software, and done translations. Many of our graduates go on to do graduate work in applied linguistics or education programs. Some go directly into language teaching and related fields. A good background in the core areas seems to be good preparation for that.

Special Features

Advanced undergraduate students have opportunities to assist in courses as readers, tutors, section leaders, etc. (essentially, to function as TAs). Particularly able undergraduate students may propose to teach a lower division course, under the supervision of a faculty mentor. Courses offered in this way have included an introduction to linguistics, a course in language pathology, and a course in the phonology and morphology of Russian.

A yearly research seminar offered in the fall quarter provides a framework in which students pursue individual research projects, culminating in a paper and a conference presentation. This work can be continued and developed into a senior thesis for submission in the spring.

Student papers written in advanced courses are sometimes edited (by student volunteer editors), reproduced, and published as undergraduate working papers. This has been done in recent years with syntax squibs, phonology papers, and papers from the field methods course.

2.4 Relation to the Graduate Program

Beginning in fall quarter 1986, a new Ph.D. program in Linguistics was initiated at UCSC. It will be a small program, reaching not more than twenty students at steady state, focussing on theoretical linguistics. The graduate program will be closely interrelated with the undergraduate major program.

Students admitted to the graduate program will have varying degrees of preparation in the core areas. In the unmarked case a new graduate student will enter each of the core sequences at an intermediate level (phonology 2, syntax 2, semantics 2) and complete the sequence the first year. The intermediate and advanced level core courses will thus be mixed undergraduates and graduate students. This will also be true of the more advanced topics and theoretical frameworks courses, the field methods course, and the research seminar.

Several new courses introduced in conjunction with the graduate program will also offer enrichment to the program of advanced undergraduates: a history of the discipline, a course in mathematical foundations of linguistics, a course in linguistic argumentation and analysis, and a course in advanced phonetics. The addition of new faculty and increased visiting faculty generated by the graduate program will provide further enrichment and variety for advanced undergraduate students.

The presence of graduate students in itself should prove beneficial to the undergraduate majors. More able, intelligent students means better classes; advanced courses need not be so small; and it will not hurt to have more role models working at a level not too far advanced.

No course will be inaccessible to undergraduates. At UCSC there will be no seam between the undergraduate major and the graduate program.

3. Conclusion

The previous sections have described the history and the content of the UCSC Linguistics major. Here I will briefly discuss the place of the major in the general curriculum and what it offers to the students and the university.

Students majoring in linguistics at UCSC get a thorough, rigorous introduction to a discipline. Those who desire to are well prepared to pursue further study at the graduate level, either in theoretical linguistics or an applied field. All graduands have behind them an intellectual accomplishment of some value, and have developed the intellectual flexibity and independence that is the most important product of a liberal education. They are well exercised in thinking hard, and in writing clearly and persuasively.

The University benefits in several ways from the presence of a strong Linguistics program. At UCSC Linguistics attracts excellent students, many of whom (especially transfer students) come to the campus specifically to study Linguistics. The presence of a rigorous and technically satisfying program within the Humanities draws able students into the division, contributing to its strength and intellectual vigor. Neighboring disciplines (Psychology, Computer Science, Language Studies) are enhanced by interaction with Linguistics at faculty, graduate, and undergraduate levels.

Linguistics provides a number of services to the general education curriculum, including courses in computer literacy, English grammar, Phonetics (taken by large numbers of language students), Syntax 1 (taken by lots of non-majors just for the intellectual experience), Semantics 1 (taken by many non-majors for its natural-language approach to logic), and more.

Linguistics at many universities suffers from the minority status of Linguistics as a discipline. Many faculty colleagues at the same institution will not even have heard of linguistics, and most of those who have heard of it will not understand what it is, and will not see why a university should have a department for that. We have overcome this disadvantage at UCSC by establishing the Linguistics major as a rigorous program of recognized quality and by providing extensive and visible service to the university at large.

Many factors have contributed to the success of the UCSC Linguistics program. We have been fortunate in having a friendly administration, a supply of excellent students, many opportunities to provide useful and not very onerous service, and some luck. But it is clear that the one essential factor all along has been the quality of the Linguistics major.

APPENDIX 5

Sample Undergraduate Linguistics Courses

The views expressed are those of the authors and do not necessarily reflect the position of the LSA or the National Endowment for the Humanities.

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PREFACE

The Linguistics in the Undergraduate Curriculum (LUC) project is an effort by the Linguistic Society of America (LSA) to study the state of undergraduate instruction in linguistics in the United States and Canada and to suggest directions for its future development. It was supported by a grant from the National Endowment for the Humanities during the period 1 January 1985-31 December 1987. The project was carried out under the direction of D. Terence Langendoen, Principal Investigator, and Secretary-Treasurer of the LSA. Mary Niebuhr, Executive Assistant at the LSA office in Washington, DC, was responsible for the day-to-day administration of the project with the assistance of Nicole VandenHeuvel and Dana McDaniel.

Project oversight was provided by a Steering Committee that was appointed by the LSA Executive Committee in 1985. Its members were: Judith Aissen (University of California, Santa Cruz), Paul Angelis (Southern Illinois University), Victoria Fromkin (University of California, Los Angeles), Frank Heny, Robert Jeffers (Rutgers University), D. Terence Langendoen (Graduate Center of the City University of New York), Manjari Ohala (San Jose State University), Ellen Prince (University of Pennsylvania), and Arnold Zwicky (The Ohio State University and Stanford University). The Steering Committee, in turn, received help from a Consultant Panel, whose members were: Ed Battistella (University of Alabama, Birmingham), Byron Bender (University of Hawaii, Manoa), Garland Bills (University of New Mexico), Daniel Brink (Arizona State University), Ronald Butters (Duke University), Charles Cairns (Queens College of CUNY), Jean Casagrande (University of Florida), Nancy Dorian (Bryn Mawr College), Sheila Embleton (York University), Francine Frank (State University of New York, Albany), Robert Freidin (Princeton University), Jean Berko-Gleason (Boston University), Wayne Harbert (Cornell University), Alice Harris (Vanderbilt University), Jeffrey Heath, Michael Henderson (University of Kansas), Larry Hutchinson (University of Minnesota, Minneapolis), Ray Jackendoff (Brandeis University), Robert Johnson (Gallaudet College), Braj Kachru (University of Illinois, Urbana), Charles Kreidler (Georgetown University), William Ladusaw (University of California, Santa Cruz), Ilse Lehiste (The Ohio State University), David Lightfoot (University of Maryland), Donna Jo Napoli (Swarthmore College), Ronald Macaulay (Pitzer College), Geoffrey Pullum (University of California, Santa Cruz), Victor Raskin (Purdue University), Sanford Schane (University of California, San Diego), Carlota Smith (University of Texas, Austin), Roger Shuy (Georgetown University), and Jessica Wirth (University of Wisconsin, Milwaukee).

Introduction

When the LUC Project was started, Arnold Zwicky (The Ohio State University and Stanford University) canvassed linguistics departments and programs for descriptions of courses dealing with topics that would not be viewed as traditional or "core" courses in linguistics, and that might be of interest to institutions attempting to enrich their set of offerings to undergraduates. The descriptions were analyzed by Ellen Prince (University of Pennsylvania), Robert Freidin (Princeton University), and D. Terence Langendoen (CUNY Graduate Center); about thirty were selected for inclusion in this volume based on their special interest for the study of language beyond the introductory level.

In addition to these course descriptions, the LUC Steering Committee decided to include in this volume three papers it had received as "position papers": "Language in Power and Persuasion" by Carlota Smith (University of Texas at Austin); "Offering a Faculty Enrichment Seminar in Linguistics" by Nancy Dorian (Bryn Mawr College); and "The Workshop Method: Designing and Implementing Undergraduate Linguistics Courses" by K.P. Mohanan (Stanford University). Finally, the committee decided to reprint some classic papers on undergraduate linguistics instruction: "The Undergraduate Linguistics Course" by the late Adrian Akmajian; "Languages of the World: A Semi-Individualized Introductory Linguistics Course" by Alice Faber and Hatte R. Blejer; "Phonemes and Features" by Arnold Zwicky; and "Word Accent, Phrase Accent, and Meter" by Arnold Zwicky. The first of these papers is reprinted by permission from the volume Linguistics and the University Education published by Michigan State University; the other three are reprinted by permission from the journal Innovations in Linguistics Education distributed by the Indiana University Linguistics Club and edited by Daniel A. Dinnsen, Indiana University.

Mary Niebuhr and Nicole VandenHeuvel of the LSA Secretariat developed the format and edited the descriptions to conform to this format. Bibliographical entries were altered, where necessary, to conform to the LANGUAGE style sheet, but no effort was made to complete the partial bibliographical references. We thank everyone who assisted in putting this volume together, especially those who submitted course descriptions from their respective colleges and universities.

TABLE OF CONTENTS

Animal Communication
Animal Communication 3
Animal Language 5
Bilingualism 7
Ethnic Bilingualism in the United States 9
Introduction to Sociolinguistics 11
The Introductory Undergraduate Linguistics Course* 13
Language and Formal Reasoning 19
Language and Formal Reasoning (An Introduction to Logico-Semantics) 21
Language and Human Conflict 23
Language and Power 25
Language and Sex 27
Language and the Brain 29
Language in Power and Persuasion* 31
Language Planning 43
Language Typology and Language Universals 47
The Languages of Science Fiction and Fantasy 49
Languages of the World 51
Languages of the World: A Semi-Individualized Introductory Linguistics Course* 53
Linguistic and Related Disciplines: The Linguistic, Philosophical, and Political Thought of Noam Chomsky 81
Linguistic Approaches to Point of View in Fiction 83
Linguistics and Literature 85
Mysteries of Mind, Brain and Humanity 87
Offering a Faculty Enrichment Seminar in Linguistics* 89
Phonemes and Features* 95
Politics of Language 117
The Power of Words 119
Psycholinguistics 121
Psychology of Language 123
Structure of Black English 125
Textual Analysis: Words, Images, Music 127
Thinking Linguistics 129
Traditional Grammars 131
Word Accent, Phrase Accent, and Meter* 133
The Workshop Method: Designing and Implementing Undergraduate Linguistics Courses* 155
Writing Systems and Decipherment 193

*Course description is not in LUC format.

Title **Animal Communication**

Level It is recommended that students have completed one course in linguistics, psychology, sociology, or anthropology.

Description This course investigates the ways in which animal communication systems differ from human language. In particular, students will consider whether these are qualitative or quantitative. The last part of the course is devoted to the ape language controversy and the species-specific nature of language.

Required Readings

Cheney, D.L. 1984. "Category formation in vervet monkeys." In R. Harre and V. Reynolds, eds., The Meaning of Primate Signals. Cambridge: Cambridge U Press.

Gardner, R.A. and B. Gardner. 1969. "Teaching sign language to a chimpanzee." Science; 165.

Gleitman, L.R. 1984. "Biological predispositions to learn language." In P. Marler and H. Terrace, eds., The Biology of Learning. Berlin: Springer-Verlag.

Gould, James. 1975. "Honey bee recruitment: The dance language controversy." Science; 189.

------------. 1984. "Natural history of honey bee learning." In P. Marler and H. Terrace, eds., The Biology of Learning. Berlin: Springer-Verlag.

Hockett, C.F. 1963. "The problems of universals in language." In Joseph Greenberg, ed. Universals of Language. Cambridge, MA: MIT Press.

Lancaster, Jane. 1968. "Primate communication systems and the emergence of human language." In P. Jay, ed., Primates. New York, NY: Holt, Rinehart and Winston.

Lenneberg, Eric. 1971. "A biological perspective of language." In B. Malmberg, ed., Readings in Modern Linguistics.

Limber, John. 1980. "Language in Child and Chimp." In T. Sebeok and J. Umiker-Sebeok, eds., Speaking of Apes. New York, NY: Plenum Press.

Marler, P. 1984. "Song learning: Innate species difference in the learning process." In P. Marler and H. Terrace, eds., The Biology of Learning. Berlin: Springer-Verlag.

Premack, D. "Language in Chimpanzee?" Science; 172.

Savage-Rumbaugh. 1984. "Acquisition of functional symbol usage in apes and children." In H. Roitblat, T. Bever, and H. Terrace, eds., Animal Cognition. Hillsdale, NJ: Lawrence Erlbaum Associates.

Sebeok, T. 1976. Contributions to the Doctrine of Signs. Bloomington, IN: Indiana U Press.

Seyfarth, R.M. 1984. "What the vocalizations of monkeys mean to humans and what they mean to the monkeys themselves." In R. Harre and V. Reynolds, eds., The Meaning of Primate Signals. Cambridge: Cambridge U Press.

Terrace, H., L. Petitto, R. Sanders, and T.G. Bever. 1979. "Can an ape create a sentence?" Science; 1970.

Terrace, H. and T.G. Bever. 1980. "What might be learned from studying language in the chimpanzee?" In T. Sebeok and J. Umiker-Sebeok, eds., Speaking of Apes. New York, NY: Plenum Press.

Thorpe, W.H. 1956. "The Language of birds." Scientific American; 195.

von Frisch, Karl. 1974. "Decoding the language of the bee." Science; 185.

Weiner, Linda. 1986. "Song learning in birds." Word; 37.

Syllabus

Communication Systems
Nature of Human Language
Iconic/Symbolic Aspects of Animal Signals
Learning/Innateness in Animal Communication Systems
Referential vs Affective Function of Animal Signals
The Ape Language Controversy: Syntax and/or Productivity?
Symbol Usage in Apes
Species-Specificity of Language
Biological Predisposition for Language

Requirements Midterm, one paper, final.

Source

York University
Instructor: Susan Ehrlich

Title	**Animal Communication**
Level	Most students are zoological sciences and psychology majors.
Description	This course looks at language as a system and compares it with animal systems of communication.
Required Readings	Andrew, R.J. The Origins of Facial Expressions. Geschwind, N. Specializations of the Human Brain. Moskowitz, B.A. The Acquisition of Language. Terrace, H.S. and T.G. Bever. What Might be Learned from Studying Language in the Chimpanzee? The Importance of Symbolizing Oneself. Thorpe, W.H. The Language of Birds. Wilson, E.O. Pheromones. Wilson, E.O. Animal Communication. Von Frish, Karl. Dialects in the Language of the Bees. Zihlman, A. and J. Lowenstein. Delphinus Sapiens: How Human are Dolphins?
Syllabus	Human Language Insects Honeybees Birds Dolphins and Whales Non-Human Primates Chimpanzees
Requirements	Two midterms, final, short paper
Other	FILMS "Signs of Apes and Songs of Whales" "Among the Wild Chimps" "First Signs of Washoe"
Source	Michigan State University Instructor: Carolyn Harford

Title	**Animal Language**
Description	The purpose for students is to study the ape language controversy and try to reach their own conclusions. To do this, students need to develop some background on the form and function of animal communication and human language. Students will then examine some language experiments with dolphins and the major ape-language work. Finally, students will try to evaluate the claims and counterclaims that are being fired back and forth across the academic battlefield.
Syllabus	The Ape-Language Controversy Animal Communication and Human Language Teaching Animals Language Evaluating the Ape-Language Controversy
Requirements	Three tests
Source	University of Wisconsin-Milwaukee Instructor: A. Hastings

Title	**Bilingualism**
Level	No prerequisites
Description	This course concentrates on all issues having to do with bilingualism, which we can define roughly as the phenomenon of speaking or knowing at least two languages. The topics we focus on fall traditionally under the domains of several different disciplines: psycholinguistics, language teaching, general education, psychology, and sociolinguistics.
Required Readings	Grosjean, Jean. Life with Two Languages. Hatch, Evelyn M. Psycholinguistics: A Second Language Perspective. Selinker, Larry and Susan Gass. Workbook in Second Language Acquisition.
Suggested Readings	Kachru, Braj, ed. The Other Tongue: English Across Cultures.
Syllabus	Becoming Bilingual: Second Language Learning (Phonetics, Morphology, Lexicon, Syntax, Discourse) Theoretical Issues: Language Learning, Age and the Second Language, The Bilingual Mind Social Issues: The International Scene, Closer to Home, Bilingual Education, Bilingualism in the Everyday World, Back to Discourse, Student Presentations
Requirements	Two exams, quiz, research paper, class presentation.
Source	University of North Carolina Instructor: Jeannine Heny

Title	**Ethnic Bilingualism in the United States**
Level	No prerequisites
Description	An introduction to sociolinguistic issues and methods in the study of linguistic diversity and bilingualism in American society. The focus is on understanding the language experience of Asian Americans, and particularly Southeast Asian refugees, in comparison with earlier European immigrants. The course is intended as well to provide research experience within an ethnic community.
Required Readings	Grosjean, Jean. Bilingualism. Additional readings
Source	University of Minnesota-Minneapolis Instructor: Bruce Downing

Title **Introduction to Sociolinguistics**

Level No prerequisites.

Description This course considers the different ways people speak. It deals with the linguistic features characterizing differences in language use and with the social and psychological factors associated with these differences.

The course surveys (a) the different language choices available to speakers in different situations (different languages, dialects, or styles), and (b) the factors influencing the choosing of one way of speaking rather than another. Sociolinguistics is the study of language in its sociopsychological setting.

A particular emphasis of this course will be "Language and Social Issues." That is, we will look at how group memberships (gender, socioeconomic class, ethnic group, age, etc.) influence the way people speak, and how people are judged, based on the way they speak.

Required Readings

Texts: Trudgill, Peter. 1983. Rev. ed. Sociolinguistics. Penguin Books.
Ferguson, Charles A. and Shirley Heath, eds. 1981. Language in the USA. New York, NY: Cambridge U Press.

Brown, Roger and A. Gilman. 1958. "The pronouns of power and solidarity." In P.P. Giglioli, ed., Language and Social Context. pp. 252-81.
Ervin-Tripp, Susan. 1976. "Is Sybil there? The structure of some American English directives." Language in Society; 5:25-66.
Gleason, Jean B. and E.B. Grief. 1983. "Men's speech to young children." In Barrie Thorne, C. Kramerae, and N. Henley, eds., Language, Gender and Society. pp. 140-50.
Goodwin, Marjorie. 1980. "Direct-response speech sequences in girls' and boys' task activities." In Sally McConnell-Ginet et al. eds. Women and Language in Literature and Society. pp. 157-73.
Grief, E.B. and J.B. Gleason. 1980. "Hi, thanks and goodbye: More routine information." Language in Society; 9: 159-66.
Grosjean, Francois. 1982. Life with Two Languages.
Haugen, Einar. 1973. "The curse of Babel." In Einar Haugen and M. Bloomfield, eds., Language as a Human Problem. pp. 33-44.
Keenan, Elinor. 1974. "Norm-makers, norm-breakers: Uses of speech by men and women in a Malagasy community." In Richard Bauman and J. Sherzer, eds., Explorations in the Ethnography of Speaking. pp. 125-43.
Labov, William. 1972. "The social stratification of (r) in New York City." In W. Labov, Sociolinguistic Patterns. pp. 42-69.
Lourie, Margaret. 1978. "Black English Vernacular: A comparative description." In M. Lourie and N. Conklin, eds., A Pluralistic Nation. pp. 78-93.
O'Barr, William and B. Atkins. 1980. "'Women's language' or 'powerless language." In Sally McConnell-Ginet et al., eds., Women and Language in Literature and Society. pp. 93-110.
Platt, John. 1977. "A model for polyglossia and multilingualism with special reference to Singapore and Malaysia." Language in Society; 6: 361-78.
Scotton, Carol Myers. 1982. "The possibility of code-switching: motivation for maintaining multilingualism." Anthropological

Linguistics; 24: 432-44.

West, Candace and D.H. Zimmerman. 1983. "Small insults: A study of interruptions in cross-sex conversations between unacquainted persons." In Barrie Thorne, C. Kramerae, and N. Henley, eds., Language, Gender, and Society. pp. 102-17.

Syllabus

Language Use and Its Social Significance
The Social Aspect of the Structuring of Everyday Conversation
What is Communicative Competence?
Types of Linguistic Varieties and Their Uses I: Styles and Regional/Social Dialects
Types of Linguistic Varieties and Their Uses II: Ethnic Identity
Types of Linguistic Varieties and Their Uses III: Language and Gender
Language as Social Identity I: Multilingualism
Language as Social Identity II: Social Allocation of Varieties
Language as Social Identity III: Linguistic Choice as a Social Tool and Index

Requirements Two midterms, one final.

Source University of South Carolina
Instructor: Carol M. Scotton

Linguistics and the University Education
Michigan State University, 1980 (pp. 85-95)

THE INTRODUCTORY UNDERGRADUATE LINGUISTICS COURSE *

Adrian Akmajian
University of Arizona

Linguistics has made some remarkable strides in recent times, and awareness of the field in the academic world has grown steadily over the past two decades. Scholars in fields such as philosophy, psychology, sociology, anthropology, computer science, speech and hearing sciences, and education have become increasingly interested in linguistics, and this interest is reflected in the formation of new inter-disciplinary fields of study, with names such as cognitive science. But despite this growing awareness in certain other fields, linguistics still remains relatively obscure within the academic world as a whole, and is virtually unknown to the general educated public. The field may be recognized by name, but its intellectual content and results are far from understood, and people who are otherwise well educated in the natural sciences or humanities have surprisingly little knowledge of the nature of language. Simply consider the situation of the last decade or so, in which certain social scientists have told us that Black children have no language, while other social scientists have assured us that chimpanzees and gorillas _do_ have language. It seems that linguists have made little progress in dispelling long-standing linguistic myths and prejudice, and for whatever reason, haven't gotten the word out to those who need to know the results of the field.

There is little doubt that a healthy future for the field will depend in part on how broad an audience it reaches. Unfortunately, linguistics is a subject not taught in the high schools, and it is only recently that it has appeared in the college undergraduate curriculum. If the field is at least to survive (never mind flourish) in the coming decades, it is imperative that we introduce it to the college audience and actively work to establish it firmly in the undergraduate curriculum. The key to this effort will lie in the introductory course, for it is there that we will begin to dispel those persistent myths about language, and more importantly, to build the kind of interest in the field that will motivate students to study further. If we grant the importance of the introductory course, then what, exactly, should we be striving to accomplish in teaching it?

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The single most important goal of the course is a modest one, namely, to build interest in the field of linguistics. A more ambitious project, e.g. training introductory students to be able to carry out linguistic analysis, strikes me as fruitless. If by the end of the introductory course students have a gut feeling for the field, a general impression that it is exciting and deals with substantive issues, and a desire to find out more about the subject, then we will have succeeded admirably. It is not necessary to indulge in excessive watering down or over-simplifying the field for the sake of building student interest. In fact, that interest is best aroused by showing that the field deals with challenging and difficult questions, questions which are surely among the most exciting in human cognitive science.

It would be useful here to examine the introductory course taught at the University of Arizona, if only to have a concrete reference point for discussion. The course is based on the textbook by Akmajian, Demers and Harnish (1979)--indeed, the text was developed from teaching the course--and generally covers the topics given in the text in the order presented there. Students are assigned chapters as background reading for the lectures, which present some new material along with review of important points covered in the reading.

The course begins with a discussion of animal communication systems (in particular, bee, bird, and primate communication) as a means of introducing the general question, what is language? Comparison of animal communication systems with each other and with human language not only stimulates a great deal of interest (students have invariably read a popular account of some animal language or other), but also serves as an excellent pathway to human language: by the time students begin to study human language, they have already begun to think about communication in a wider context, and are alerted to looking for important features of human language as the course progresses. A course which begins--and in fact, ends--on the general theme of communication between biological organisms, can put more traditional, structurally oriented topics of linguistics into perspective that helps students grasp the broader implications of the field. The initial part of the course takes up the first week or so (three or four lectures).

The second part of the course deals with the more or less traditional areas of linguistics, including phonology, morphology, syntax, semantics, pragmatics, and language variation and change. A typical timetable for this section is as follows:

Phonology -- 3 weeks
Morphology -- 1 week
Syntax -- 2 weeks
Language Variation -- 2 weeks
Semantics/Pragmatics -- 2 weeks

Given this organization, the basic sub-fields of linguistics take up 2/3rds of the over-all course work in a 14½ week semester. It is important to stress, however, that not all of these topics will be covered by all teachers, and the particular timetable listed above reflects a particular set of interests, not necessarily shared by everyone teaching the course. Different teachers will omit different chapters and topics, and this is entirely appropriate. The point is to build interest in the field, not to introduce the student to every conceivable area of it.

One often hears that the introductory linguistics course should not be too technical or heavy on formalism, and there is a sense in which that seems sound. That is, aside from phonetic transcription exercises (which many students find enjoyable), it is generally not a good idea to ask introductory undergraduate students to produce formal representations or technical descriptions of linguistic phenomena. However, this does not mean that students should not be exposed to formalisms or technicalities. Indeed, a special effort should be made to show students how certain intuitive generalizations can be formalized for each subfield of linguistics. In the area of syntax, for example, one can show how phrase markers represent sentence structure, how phrase structure generalizations can be formalized in PS rules, or how transformations can be formalized. It is difficult to see how students can get a feeling for the nature or depth of linguistic analysis if they are not exposed to the more technical or formal aspects of the field. Further, undergraduates should be able to recognize certain gross properties of formalisms presented to them. For example, a quiz on syntax can present a student with a fully-drawn phrase marker (without terminal words), to be used as a reference in answering questions such as: What are three aspects of syntactic structure represented in a phrase marker?, How can you define subject for English using phrase markers?, Given the above phrase marker, supply each terminal line with an English word such that you form a possible sentence, and so on. I believe that we can present students with reasonably well motivated technical aspects of linguistics without overwhelming them in the process. (Let us not forget that many linguistics students are also studying chemistry, biology, and algebra.)

Turning now to the specific goal of building interest in the field, are there any teaching strategies that seem particularly useful in presenting the subject to students? There are probably as many strategies as there are teachers, but the following two strategies seem quite effective in stimulating discussion and argumentation:

A. For each linguistic topic covered, try to apply it to some social/educational issue, if possible.

B. For each linguistic topic covered, try to introduce and explain it by using an in-class exercise, drawing on the students' intuitive knowledge, rather than introducing it by straight lecturing.

How might these strategies be realized in particular cases?

To take strategy A, there are a number of interesting issues that one can discuss. For example, after class lectures on the human vocal tract and articulation of speech sounds, a teacher can ask the class what is meant by the popular term, "sloppy speech". Given the incredible complexity of the vocal tract and the intricate interplay of mechanisms that produce speech, can we say that this physiological system is ever "sloppy"? If one is not talking about actual articulation, then what can be meant by "sloppy" speech, or "lazy tongues", and so on? If a school teacher says of Black children that they don't know how to form sounds, or use their mouths, or move their lips, how can we interpret this

given what we know about the biological endowment of the vocal tract? The point of these questions is not necessarily to steer students to some "right" answer, but rather to stimulate class discussion--and it is surprising how lively and heated the arguments can become. The role of the teacher is to ask students how they can inform the debate with what they've just learned about the linguistic topic.

Turning to another example, after discussing morphological word formation processes, one can raise the question of how new words enter a language. A question that students seem particularly concerned about is whether the formation of new words is "good" or "bad" for the language. Is English getting "better" or "worse" because of the formation of new words? Again, the point is not to settle the issue (if one can even make sense of the question), but rather to encourage students to use evidence from morphology and word formation to build a case for a certain point of view.

As a final example, notice that topics such as syntax and language variation raise all sorts of good questions relating to social or educational issues, most obviously the whole matter of prescriptive vs. descriptive grammar, the status of dialects, and so on.

Turning now to strategy B above, one cannot underestimate the importance of using in-class exercises designed to make students aware of their own intuitive linguistic knowledge. Linguistics as a subject matter is never very meaningful to students until they recognize that the field deals with something that exists in their own heads. For it is then that students realize they have access to the crucial data they will need to evaluate proposals, and the field is no longer some abstract study of something that exists "out there". One of the best examples of such an in-class exercise is based on English tag question formation (see Langendoen (1970) chapter 2, Akmajian and Heny (1975) chapter 1). English tags provide a particularly rich source of illustrative examples for syntax, pragmatics, and language variation, and this construction can be used repeatedly, each time illustrating a different point.

To see how such an exercise can be used, we begin with simple sentences, such as:

(1) a. John is here
b. They are watching us
c. Mary hasn't left now

For each simple case, the teacher asks the class to provide the appropriate tag question, and here we get the expected forms *isn't he*?, *aren't they*?, and *has she*? (In addition, some students will give answers such as *right*?, or various other tags such as *John is here, is he*!, and this provides a good opportunity to begin distinguishing the various kinds of tags found in English, making it clear that the exercise is based on the "request-for-confirmation" tag.) The simple sentences allow the class to discover basic properties of tag formation, such as agreement of tag pronoun with antecedent subject, agreement of auxiliaries, and negative-positive polarity switch. Hence, in the first phase the tag exercise can illustrate such grammatical notions as subject, auxiliary, agreement, number, gender, person, noun phrase, pronoun, negative, positive, inverted word order, and so on. At this point, the reaction of the class is usually that the teacher is presenting something obvious and easy, and in fact it does no harm to encourage this attitude at the beginning, since some rather surprising facts will follow in the next phases of the exercise. Most important, here and throughout the exercise, is to stress that hypotheses about tag formation are based on the grammaticality judgments that the students themselves are making.

Having laid out the basic features of the tag rule, one can then concentrate in more detail on one of its subparts, such as pronoun agreement. At first, pronoun agreement in the tag appears to be governed simply by the following principles:

(i) determine the person, number and gender of the subject
(ii) given (i), insert the appropriate pronoun in the tag (i.e. the pronoun with the same values for person, number, and gender).

At this point, one can present a series of examples that will show the class that the matter is not so simple. The sentences in (2) make a nice starting point (see Langendoen (1970) for further cases):

(2) a. The dog is sick
b. The ship left the harbor
c. The baby is hungry

With these examples, one begins to get examples of language variation within the class itself, as in the following:

(3) a. The dog is sick, isn't it?/isn't he?/isn't she?
b. The ship left the harbor, didn't it?/didn't she?
c. The baby is hungry, isn't it?/isn't she?/isn't he?

Students begin to realize that variation exists not only across the group, but within single individuals as well. Such examples show that there is not necessarily only one choice for the tag pronoun, and that determining gender is not quite the trivial task it seemed at first.

Determining the number is not a trivial matter either, as the following contrast can show:

(4) a. Both John and Bill will be there
b. Either John or Bill will be there

The response to (4a) is invariably *won't they*; however, (4b) elicits either *won't they*, *won't he*, or a significant number of *right*?'s. Sentence (4c) below often elicits a refusal to answer:

(4) c. Either Mary or John will be there

For students that are often victims of the misconception that English grammar is completely explained by composition handbooks, such examples can be quite effective in showing that much remains to be discovered.

Continuing on the theme of determining number, sentences with quantified noun phrases as subjects, such as *everyone* or *no one*, present further interesting data:

(5) Everyone is at home now, aren't they?

This example can be used to show that certain subjects cannot be classified exclusively as singular or exclusively as plural, but are in fact either singular or plural depending on the syntactic process one looks at. With respect to verb agreement, *everyone* is syntactically singular (cf. *is*); with respect to pronoun choice in the tag, *everyone* is plural (cf. *they*). This is a natural point to discuss the traditional prescriptive notion that noun phrases such as *everyone* take singular *he* (*his*, *him*) as the "proper" pronoun choice:

(6) Everyone lost his books

One can begin to wean students from this view by presenting examples such as:

(7) Everyone lost his books yesterday. I wonder if he found his books today?

Clearly, in the second sentence of (7), neither he nor his can refer to everyone (i.e. the scope of the quantifier doesn't cross sentence boundaries), and this can be used as the basis for a discussion about he vs. they as the pronominal form for everyone.

Finally, one can consider a case which shows that pronoun choice in the tag cannot be determined from the subject alone, even if one has arrived at an analysis of its properties. Consider the following contrast, where the tags reflect a very consistent pattern in the classes I have polled:

(8) a. John was the one who stole the cookies, wasn't he?

b. The one who stole the cookies was John, wasn't it?/ *wasn't he?

The shift to it in the second example is a consistent change, one which surprises students and stimulates a good deal of discussion. The choice of it in (8b) is clearly not based on properties of the subject alone, for that same subject in a different sentence cannot be tagged by it:

(9) a. *The one who stole the cookies just walked in, didn't it?

b. The one who stole the cookies just walked in, didn't he/she?

Examples (8) and (9) show that sometimes the choice of pronoun in the tag is the result of a global analysis of the sentence, and not merely the subject. It seems that sentences that are identificational or specificational in form--sentences of the form x=y--can have the tag with it. This is confirmed by the distinction between (8b), a sentence of the form x=y, and (9a), a typical predicational sentence. We also find confirmation from replies to WH-questions:

(10) a. Who stole the cookies?

b. It was John (who = John)

Notice that the analysis so far is still insufficient to distinguish between (8a) and (8b), both of which are identificational sentences, but only one of which has a tag with it. Clearly, the difference

in word order of the two sentences plays a role.

Whatever the explanation turns out to be, we nevertheless have a good example illustrating the idea that pronoun choice in the tag is not a simple matter of inserting an appropriate pronoun for the subject of the sentence. It is clear that the pronoun choice is a result of a rather sophisticated analysis of the whole preceding sentence. To present this particular point in a straight lecture is no doubt adequate; but when the point emerges from a class exercise, in which the students themselves have made the linguistic choices and judgments, it will be far more significant and interesting than any lecture could make it. Finally, students will usually ask for "the right" explanation for data such as (8) and (9) above, and a good teacher will often try to provide an acceptable explanation. But it can be valuable, at certain points in a course, to leave certain problems unexplained and a bit mysterious. For nothing can better illustrate the current state of linguistics, where we often have questions but no answers; and it is precisely this that makes linguistics an exciting field, and encourages inquisitive students to look further.

Having presented students with basic subdisciplines of linguistics in the second part of the course, the final two weeks or so can be spent dealing with topics that broaden the perspective once again, such as language and brain function, language processing and acquisition, teaching artificial languages to chimpanzees, and so on. In this section of the course, the class can return to a general theme such as the nature of communication, using the theme to tie together various specific strands previously introduced in the course. For example, the question of whether chimpanzees can learn and use language in the manner that humans do is a particularly useful theme allowing students to tie together the previously covered sections on animal communication and human language and communication.

The content and manner of presentation of the introductory course are crucial factors in building interest in the field on the part of students, but these are not the only factors that will determine the success of the course in the long run. For we must not only address the issue of how the subject matter is to be presented, but also the question of what audience we should try to reach. Linguistics is important enough to be included in the fundamental humanities curriculum of the university, and in the ideal case the introductory linguistics course would reach a broad spectrum of undergraduates in liberal arts. Whether or not this comes about at some point in the future, a more reasonable goal at present is to try to target specific audiences among undergraduate students to attract into the course. In particular, education students are one of the most important groups to reach at present. There is little doubt that language awareness and attitudes are significantly shaped by language instruction in the public schools. If we ever hope to see changes for the better in awareness, attitudes, and instruction, then we must try to attract education majors into linguistics courses. The benefits will certainly be mutual, for the field of linguistics could profit enormously from school teachers who introduce some linguistics into their own classrooms, and make their own students aware that the field exists.

The link between linguistics and education has so far been a tenuous one. For various historical reasons, linguists as a group haven't been all that interested in reaching teachers, and teachers often have had less than flattering views about linguists. Given the very positive benefits each side could reap from the other, this state of affairs is all too unfortunate. But the situation is not hopeless, and if we have had little luck in reaching teachers, we can at least try to reach undergraduate education majors. At the University of Arizona, elementary education majors now take Linguistics 101 as a requirement (with the result that the course has grown to 200 students per semester), and all indications are that the students find the course informative and even enjoyable. The most significant comment from the students, and a very common one at that, is that the course taught them things they had not known before, and had not been exposed to in any other course they had taken. As one might guess, the sections of the course on language variation, dialects, Black English, and related topics, were the most significant for education majors.

This brings us back to the theme of teaching introductory linguistics with the goal of building interest in the field. If we succeed in attracting education majors, for example, then we

have a serious professional responsibility for presenting linguistics in a way that shows the field to be lively and relevant. Indeed, the teaching strategies mentioned above--relating linguistic topics to social/education issues, and presenting linguistics topics in active class exercises--developed from a need to show students that linguistics could be important to them. In the end, the future of linguistics depends in large part on whether students become attracted to the field. And linguists owe it to themselves to strive more than ever to show students that the field is, and will continue to be, one of the most promising investigations into human nature in current scientific inquiry.

REFERENCES

Akmajian, A., R. A. Demers, and R. M. Harnish. 1979. Linguistics: An Introduction to Language and Communication. Cambridge, Mass.: MIT Press.

Akmajian, A., and F. W. Heny. 1975. An Introduction to the Principles of Transformational Syntax. Cambridge, Mass.: MIT Press.

Langendoen, D. T. 1970. Essentials of English Grammar. New York: Holt, Rinehart and Winston.

Title	**Language and Formal Reasoning**
Level	No prerequisite, satisfies General Education Requirement in Quantitative and Formal Reasoning.
Description	This is an introduction to the study of linguistic meaning through logical analysis. It has a twofold goal: to introduce students to the subject matter of linguistic semantics, and also to exercise and sharpen students' logical reasoning abilities by providing a logical "shorthand." It begins with a study of both the grammar of English and a logical language, the Predicate Logic with Quantification. The first part of the course presents the analysis of predication and quantification in the logical language and compares the "logical structure" of English sentences to their syntactic structure. Later the course turns to solving problems using the logic that was learned to clarify the process of reasoning.
Required Readings	Text: Hodges, W. Logic. Supplementary handouts.
Suggested Readings	Allwood, Andersson, Dahl. Logic in Linguistics.
Syllabus	Language, Semantics and Logic Propositions, Truth and Entailment Syntax of English: Phrase Structure and Categories Representing a Sentence's Structure: Simple Sentences Complex Sentence Structure The Logic of AND and OR Complex Formulas and Truth Tables The Logic of NOT Formalizing Sentences of English The Whole Truth and Nothing But The Logic of Conditions Derivations Using Logical Equivalences Proof Strategies: The Files of Inspector Craig Laws of Inference with Conditionals Proofs and Derivations Proofs Using the Rules of Inference Terms and Quantifiers Predicates and Relations Formalizing Quantifier Sentences Logical Equivalence among Quantifiers Arguments with Quantifiers Predicate Diagrams Modality
Requirements	Frequent homework exercises, two midterms, final exam
Source	Cowell Collge, University of California-Santa Cruz Instructor: Bill Ladusaw

Title	**Language and Formal Reasoning** **(An Introduction to Logico-Semantics)**
Level	Honors Seminar, College of Liberal Arts Summer course for high-ability high school students
Description	The course introduces the two component disciplines (logic and semantics) and their interrelationship to give students a feeling for what is involved in the formalization of intuitive concepts.
Required Readings	Text: Kac, M.B. A Semantic Approach to Logic.
Syllabus	Conditional Statements and Entailment Mathematical Tools for Logico-Semantics An Elementary Theory of Logical Relations Sentential Logic and Boolean Algebra Compositional Semantics for a Fragment of English Another Theory of Logical Relations
Requirements	Written assignments, final exam
Source	University of Minnesota-Minneapolis Instructor: Michael Kac

Title **Language and Human Conflict**

Level Junior/Senior

Description "Language and human conflict" is an organizing theme, not a body of content per se. It is a focus upon language (and language differences) as both cause and consequence of social and cultural conflict. By examining language in this way, we can get a sense of the extent to which language drives social interaction--not the "content" of language so much, but the nature of the code itself and the attitudes and values we attach to it.

Required Readings Black English in the Inner City (case study)
Spanish Bilingualism (case study)

BLACK ENGLISH

Baratz, Joan. 1970. "Educational considerations for teaching Standard English to Negro children." In Ralph Fasold and Roger Shuy, eds., Teaching Standard English in the Inner City. Washington, DC: Center for Applied Linguistics. pp. 20-40.

Baratz, Joan and Roger Shuy, eds. 1969. Teaching Black Children to Read. Washington, DC: Georgetown U Press.

Baugh, John. 1983. Black Street Speech: Its History, Structure, and Survival. Austin, TX: U TX Press.

Fasold, Ralph. 1981. "The relation between Black and White speech in the South." American Speech; 56: 163-89.

Farrell, Thomas. 1983. "IQ and Standard English." College Composition and Communication; 34: 470-84.

Jones, Rachel. 1982. "What's wrong with Black English?" Newsweek; 103(Dec): 174.

Kennedy, Graeme. 1972. "The language of tests for young children." In Bernard Spolsky, ed., The Language Education of Minority Children. Rowley, MA: Newbury House. pp. 164-81.

Kochman, Thomas. 1972. "Toward an ethnography of Black American speech behavior." In Thomas Kochman, ed., Rappin' and Stylin' Out: Communication in Urban Black America. Urbana, IL: U of Illinois Press. pp. 241-64.

Labov, William. 1964. "Stages in the acquisition of Standard English." In Roger Shuy, ed., Social Dialects and Language Learning. Champaign, IL: NCTE. pp. 77-103.

Labov, William. 1969. "The logic of Nonstandard English." Florida Foreign Language Reporter; 7: 60-74.

Labov, William. 1972. Language in the Inner City: Studies in the Black English Vernacular. Philadelphia, PA: U of Pennsylvania Press.

McDavid, Raven. 1967. "A checklist of significant features for discriminating social dialects." In Eldonna Evertts, ed., Dimensions of Dialect. Champaign, IL: NCTE. pp. 7-10.

McDavid, Raven and Virginia McDavid. 1951. "The relationship of the speech of American Negroes to the speech of Whites." American Speech; 26: 3-17.

McDavid, Raven and Lawrence Davis. 1972. "The dialects of Negro Americans." In Elaine Smith, ed., Studies in Honor of George L. Trager. The Hague: Mouton. pp. 303-12.

Rickford, John. 1985. "Ethnicity as a sociolinguistic boundary." American Speech; 60: 99-125.

Tarone, Elaine. 1973. "Aspects of intonation in Black English." American Speech; 48: 29-36.

Yellin, David. 1980. "The Black English controversy: Implications

Title	**Language and Power**
Level	No prerequisite
Description	This course will investigate the role of discourse in society. Various oral discourse genres, such as conversational interactions, will be analyzed to determine the means by which participants create and maintain dominance, power and status through "talk." In addition, written discourse genres, such as newspaper reports, will be examined to determine the means by which ideology is conveyed through linguistic choices. Specific topics will include: political discourse, legal discourse, cross-cultural discourse, classroom discourse, parent/child discourse, and male/female discourse. Practical applications of this type of discourse analysis will also be discussed. The course is designed to be of interest to students in linguistics, sociology, political science, education, and anthropology.
Required Reading	Wardhaugh, R. 1985. How Conversation Works.
Requirements	Two tests, research paper, assignments, class participation.
Source	York University Instructor: Susan Ehrlich

Title	**Language and Sex**
Level	Sophomore standing.
Description	The course will deal with linguistic differences between males and females with respect to the use and the structure of language. It will also address the question of what linguistic analysis can tell us about how males and females are viewed by the speakers of various languages. Sex-linked speech differences in various languages will be examined, as well as nonverbal communication. We will also look at phenomena which reveal attitudes toward the sexes, such as sex-exclusive derogatory terms and the use of noun classifiers in various languages. The underlying causes of these phenomena will be discussed.
Required Readings	Text: Thorne, B., C. Kramarae and N. Henley, eds. 1983. Language, Gender and Society.
Suggested Readings	Eakins, B. and G. Eakins. 1978. Sex Differences in Human Communication.
Syllabus	Stereotypes of Women's and Men's speech Language and Woman's Place: Empirical Studies of Amount of Talk, Vocabulary Differences, Expletives and Tag Questions Linguistic Variation and Change: Men's and Women's Roles Intonational Differences Conversational Strategies Language Acquisition Women and Writing Language in the Classroom Sexism in Language Structure Names, Titles, and Other Terms of Address Semantic Change
Requirements	Two tests, one paper, short assignments, class and tutorial participation
Source	York University Instructor: Ruth King

Title **Language and the Brain**

Description Introduction to the study of neurolinguistics--the study of the relation between brain organization and language behavior. Topics include: study of aphasia from a clinical, neurological, and linguistic perspective; split brain patients; and laterality of brain function. In addition, the effects of neurological deficits on higher critical functions such as artistic realization (much and art) will be considered.

Required Readings

Gardner. Shattered Mind
Sarno, M.T. Acquired Aphasia

Suggested Readings

Berndt, R. and A. Caramazza. 1980. "A redefinition of the syndrome of Broca's aphasia." Applied Psycholinguistics; 1: 225-78.
Blumstein, S.E., W. Milber, and R. Shriere. 1982. "Semantic processing in aphasia: Evidence from an auditory lexical decision task." Brain and Language; 17: 301-15.
Caplan, D., ed. Biological Studies of Mental Processes.
Gatz, A. Manter's Essentials of Clinical Neuroanatomy and Neurophysiology.
Geschwind, N. 1965. "Disconnexion syndromes in animals and man." Brain; 88: 237-94, 585-644.
------------- 1972. "Language and the brain." Scientific American: 76-83.
Goodglass, H. and E. Kaplan. The Assessment of Aphasia and Related Disorders.
Heilman and Valenstein. Clinical Neuropsychology.
McGlone, J. 1980. Behavioral & Brain Sciences; 3(2): 215-64.
Springer, S. and Deutsch. Left Brain, Right Brain.

Syllabus

Introduction to Clinical Neurology and Neuropsychology
The Aphasia Syndromes--Clinical, Neurological, and Historical Aspects
Language Processing in Aphasia
Role of the Right Hemisphere in Language Processing
Critical Periods and Aphasia in Children
Sex Differences in Brain Organization
Neurological Deficits and Other Higher Cortical Functions

Source:

Brown University
Instructor: Sherry Baum

Language in Power and Persuasion

Carlota S. Smith

The patterns of language in public power and persuasion reveal a great deal about a society. Language plays a central role in public persuasion, and it is an important factor in social and political life. The language of powerful groups reinforces their position of dominance; that of the less powerful acts as a self-fulfilling prophecy, maintaining a position of subordination. The study of these patterns of language use can be a significant component of a liberal arts education. It is especially important in a mass society such as ours, where techology has a driving force of its own and the individual is often quite remote from public events. The study shows through cases of different types that language is a dynamic element in society.

The language of power and persuasion can be studied with the tools of rhetorical and pragmatic analysis. Rhetorical analysis explicates the textual functions and effects of words and phrases, and syntactic structures. Pragmatic analysis looks at implications, expectations, the effects of different contexts. The study depends on an understanding of language as a symbolic human activity and its role in communication. These essentially language-oriented approaches must be supplemented by others that identify the factors involved in the persuasive use of language. People are susceptible to overt and tacit appeals of various kinds, especially in the symbolic domain of language: appeals to emotion can be made with language that plays on needs, evokes important cultural myths, etc. The constraints and effects of mass media must be considered as well. The suggested approach is inter-disciplinary: language use cannot be studied in a vacuum. Psychological, political, economic, social and historical considerations may all be relevant; this type of study can develop in a number of ways, depending on the interests and expertise of the people involved.

The linguistic focus offers a way for students to approach quite directly thorny and important issues in current affairs. Since everyone commands their own language, language tools present a kind of analysis that is immediate and available to everyone. The course of study advocated here can be at once a kind of consciousness raising, a spur to action, and training in active participation.

In what follows I will briefly discuss the areas of persuasion and language and power, and consider the types of language analysis that would be useful in studying them. I then give some specific topics, and some suggested readings, that might be covered in courses. These topics might appear in sections of a general introductory linguistics course; they might be part of an interdisciplinary course; they can also be put together to make up a single course.

1. Persuasion In our society people are bombarded with persuasive messages of all kinds; they frequently feel manipulated, puzzled, cynical, and overwhelmed with information sickness. Such feelings contribute to a pervasive sense of helplessness and passivity. There is a real danger in modern society that, understanding little of what is happening in public life, people are disinclined to participate. The university can make a difference by training people so that they have some understanding of persuasion. For self-defense people can be equipped to recognize and deal with the mass persuasion that they encounter. There is another, more ambitious goal: to train people to be active members of society. Thus one goal of training in persuasion is itself persuasive: to convince people that active participation in society is possible, and to equip them for such participation.

The basic questions in a study of persuasion are these: What is effective persuasion, and what ineffective? What is legitimate in persuasion, and what illegitimate? How does persuasive language work? what are the psychological, political, and social factors underlying persuasion?

These questions can be pursued by looking at persuasive language itself, and at the principles of persuasion developed in classic and modern rhetorical studies. Aristotle distinguished the main components of communication in the Rhetoric - source, audience, and message - and they appear in all models of communication. In considering mass communication the special properties of the mass media, such as the role of the receiver in hot and cool media (cf Marshall McLuhan), are also important factors.

Public persuasion appears in the political, social, and commercial spheres of society. However, the most interesting ways of organizing studies of persuasion cut across these categories to more notionally focussed topics. Advertisements, for example, can be analyzed along the same lines whether they are selling a candidate, an institution, or a product. Indeed, many current discussions of persuasion make no such distinction. (This is in itself worthy of note.) Students can learn to identify the types of appeal that are used in a given situation, the way language together with other modes is deployed to make the appeal, the context of the appeal. Another topic is that of persuasive speeches, discussions, reports; that is, the study of hortatory language. The basic patterns of argument and appeal underlie persuasion generally; people who can recognize these patterns are in a position to understand and evaluate the particular versions that they encounter, and to appreciate the significance of presentations such as those based on an enthymeme or missing premise. The propaganda campaign is another general topic. Modern propaganda arose in a political context, but according to some scholars it is now found in mass persuasion generally. Others believe that the ideological is essential to the notion of propaganda. The distinction between "black" and "white" propaganda is helpful; although both types use many propaganda techniques, only the former involves deception.

Persuasion in the area of public policy is more subtle, since it does not usually involve overt appeals. Persuasive language is routinely used to make attractive the policies that are in place or that are being advocated, and to stigmatize other policies. For example, the language used to talk about such matters as welfare recipients and programs, education, health programs, is controlling and revealing. Much public policy is almost removed from scrutiny by the distancing nature of its language: either through technical terms and phrases that are beyond the comprehension of most people, or by forests of beaurocratic language that have the same effect of remoteness. The persuasive power of colorless and beaurocratic language is important and little understood. Discussions of the arms race and the destructive power of nuclear weapons are a strong example.

Controversial issues can hardly be avoided, of course, in studies of this type. Questions about persuasion provide a useful way for students to approach such issues. Such questions lead to direct recognition of different viewpoints and positions; the amount of accompanying scholarly analysis (political, sociological, psychological) may vary with the interests of students and teacher. Issues that students have found interesting and important include propaganda in Nazi Germany, in the Soviet Union and China, in the United States; the sequestering of the Japanese in California during World War II; abortion; evangelism; gun control; arms control.

2. Language and Power In another area, language is used persuasively to assert and enhance the power of people in positions of dominance. There are striking consistencies in the talk of those who have power in a society. Here language is not deployed to persuade, in the sense of a focussed presentation of an issue or a decision. Rather, choices are made consistently by people in powerful positions, so that a powerful style can be identified. Such patterns have been identified for members of dominant social and ethnic groups, and for people in structured situations such as courtrooms and medical interviews. Thus patterns of talk can reveal a great deal about the ideas and attitudes of those who use them. The talk may be more or less conscious, depending on the situation: people may be more aware of talking to and about blacks as subordinate than of similar patterns that they use toward women. Powerful language is controlling and definite. It is often used to denigrate and deny - indeed, to oppress - members of subordinate groups.

The language of oppression, as Haig Bosmajian calls it in his book of that name, does not occur in a vacuum. To understand the power of such language one must consider the controlling properties and magic of labels and categories; and the role of stereotypes. Bosmajian shows dramatically that the patterns of oppressive language are very much the same, although the groups and their situations are quite different. Understanding of the context of oppressive language is essential. Economic and political factors invariably accompany the use of language to denigrate and isolate a group.

There is a style of speech that is typical of the subordinate, less powerful, members of society. The style is tentative and polite, with many hedges, disclaimers, requests for confirmations and reassurance. It can be called powerless speech. The main characteristics occur in the popular stereotype of women's speech, as identified by Robin Lakoff. There is a body of research that has investigated the actual occurrence of these characteristics. It turns out that many of them are generally found in the speech of women. They are also occur in the speech of other groups that are subordinate in a given society; and, significantly, they are used by individuals who feel themselves relatively powerless in highly structured situations. researchers studied talk in many situations by many people. To arrive at these conclusions one must consider not only the frequency of certain words and structures, but also how they functioned in different situations. This research demonstrates very clearly the complexity of the phenomenon.

Most of the highly structured situations referred to above use specialized, elaborate patterns of language. The most obvious is the language of the law, as it appears in courtroom examinations, jury instructions, legal opinions and briefs. This type of language has its own rules and patterns, which are very interesting. And the people who are familiar with these patterns, using them in legal contexts, are demonstrably in positions of power. There are many other examples of professional situations in which the professional is dominant and the client is subordinate, even suppliant. In many cases power is maintained partly through the use of specialized and technical language and partly through general mechanisms of conversational control. Study of language in structured situations therefore encompasses both specialized language and patterns of control that are in a sense known to everyone. In some areas misuse of powerful language to control has become notorious: the medical and other helping professions are cases in point.

3. Approaches to Language The study of language use advocated here is based on rhetorical and pragmatic analysis. Rhetoric and pragmatics are basic tools for the discovery and assessment of significant patterns of use.

Rhetorical analysis in the widest sense is concerned with the explicit and implicit meanings of discourse. It therefore includes all the elements of sentences and their combinations, that contribute to such meanings. In the strongest rhetorical approach (a view consistent with the approach suggested here) form contributes to meaning in an essential manner. Monroe Beardsley's short essay "Style and Good Style" is a useful introduction to the view that form is meaning, and to the notions of implicit and explicit meaning.

Word meaning involves denotation and connotation; the latter covers such areas as emotional color, negative and positive weight, contextual associations. These notions are basic to the close analysis of language. Stereotypes and euphemisms probably need special consideration; cf Walter Lippman's Public Opinion, Gordon Allport's essays.

Precise and concrete words can be contrasted with vague and abstract words . Both play very important roles in persuasion: words with clear meanings and connotations require a clear message and a relatively active participating audience, while vague and abstract words can convey vague messages, keying into a relatively passive audience's private myths and symbols, and to those prevalent in the culture. It is almost a commonplace that the evocative be persuasive; remote and abstract language is also persuasive, in a rather different way. As Orwell emphasises in "Politics and the English Language," there is an important sense in which abstractions are further from their actual denotations than are concrete words. Because of this they are particularly susceptible to vague and idiosyncratic interpretation, and to misuse. Hayakawa's Language in Thought and Action has a useful discussion of this point.

Some knowledge of sentence structure is required to find and understand rhetorical effects such as the placement of important and unimportant material. Students should be able to detect parallelism and other types of repetition at the level of word and sentence. Metaphor, irony and satire, hyperbole, litotes and other tropes are used frequently in persuasive language. Rhyme, assonance, and poetic effects in which sound and meaning are brought together in a non-arbitrary way can produce important rhetorical effects; they appear of course in persuasive language of all kinds, from Kennedy's first inaugural speech to the jingles of political and product advertising.

Pragmatic analysis deals with the way people generally understand each other in communication; with conventional and conversational implicature, the role of context and discourse type in interaction. There are standard patterns of implication that people tacitly assume when talking to each other; the same patterns are assumed, and often played on, in persuasion. For example, if I offer to give you $5 if you sing *La Marseillaise*, you are likely to understand that I will not give you the $5 if you do not sing it. Yet it would not be inconsistent with what I said if you did not sing and I gave you $5. Persuasion often depends on standard assumptions and unstated implications. Grice, Levinson's text Pragmatics, parts of Sperber & Wilson's Relevance, Gordon & Lakoff's "Conversational Postulates" contain useful discussions of implications, and of communication.

Some understanding of the communicative and social mechanisms involved in language use is relevant for the study of language in power and persuasion. For instance, powerful people control conversation. They do this by such means as talking more than others, interrupting, and by controlling the topics of the conversation.

It is essential to emphasize the symbolic nature of language in discussing how it functions in public (and private) life. Murray Edelman's The Symbolic Uses of Politics, especially the chapters on language, gives an excellent presentation of this approach to the use of language in the political domain. Edelman gives a useful 4-way typology of political language according to its function: hortatory, administrative, legal, negotiating. From a very different point of view, Evelyn Waugh's novel The Loved One presents a satirical cautionary tale based in part on people's failure to understand the nature of symbolic action.

4. Topics This is a list of possible topics, with some unsystematic suggestions for readings. I do not include readings on rhetorical or pragmatic topics.

Hortatory language: political arguments, tracts, and other attempts to convince an audience to adopt a particular view and to follow a particular course of action. Reading may include classics such as Milton's "Areopagitica," Swift's "A Modest Proposal," Marx and Engels' "The Communist Manifesto," Tom Paine's "Crisis," Thoreau's "On Civil Disobedience." Speeches of orators such as Churchill, Roosevelt, John F. Kennedy may be included, including the ceremonial and the more pointed addresses. The speeches of modern presidents, senators, candidates are very much worthy studying; they are a natural way of approaching questions about the mass media and modern political life. Roderick Hart's Verbal Style and the Presidency has excellent analyses and interpretations of presidential speeches from Truman to Reagan. His discussion of Reagan is very interesting.

Patterns of argumentation. Deductive and inductive reasoning. Knowledge of the basic patterns of reasoning is essential for studying argumentation and assessing different presentations of arguments. This connection between persuasion and reasoning is a strong example of how the broad study of persuasion involves topics that are important in a general education. People need to be able to recognize valid inferences, and to be able to distinguish between validity and truth in reasoning. The study of presentation might include the persuasive power of omission and non sequitors. Toulmin's model of practical reasoning gives another approach that is quite useful; Toulmin's model is intended to present the structure of claims and arguments that do not fit the classic models.

Propaganda. In the study of propaganda one encounters the controlled use of language and other modes to shape and persuade. Propaganda has played an important role in modern war and in modern political and social life. The first propaganda campaigns occurred in England and the United States in World War I. One might set up a continuum of propaganda according to how absolute is the central control; Hitler's Germany, Orwell's 1984 are at the most controlling end. All students of propaganda agree that control and the techniques of mass media are essential ingredients(cf Bernays; JAC Brown, Michael Choukas); they differ as to the role of ideology and deception. Propaganda campaigns can be examined for answers to the question of which are the most useful distinctions. Jacques Ellul's Propaganda discusses the role of propaganda in democracies, introduces the notion of integrative propaganda. Ellulargues that a type of propaganda that is not centrally controlled pervades mass society, through pressure towards conformity.

Language and public policy. This topic can be investigated through case studies of programs and policies; and changes in labels that have practical effects such as the definitions of homosexuality as a disease, or disorder;

rape as a relatively minor or a serious crime, etc. Edelman's Political Language discusses some important areas and cases.

Beaurocratic language. Bureaucracies tend to produce the same type of impenetrable, jargon-ridden language for themselves and for the public at large. The language is dull, abstract, full of long nominals and almost-empty verbs, lacking in rhythm. Orwell noted that such language is very effective in distancing an audience from the topic. The pattern and meaning of bureaucratic language is discussed briefly in Edelman's The Symbolic Uses of Politics. The Committee on Doublespeak of the National Council of Teachers of English publishes a newsletter of current examples. Cf recent efforts to change the language of documents, e.g. Roger Shuy's work on insurance contracts are exemplary, and Foss's NSF-funded study of document design.

Language and war. Many have pointed out that when an enemy is seen as brutal and dehumanized enemy, people find it easier to act violently toward them, and to condone such violence. A modern variant of this pattern hardly recognizes the enemy as human, treating the conduct of war as essentially a technological matter. Hitler's Mein Kampf Orwell, Aldous Huxley;Bosmajian's discussion of war; O'Neill, "War words." Discussions of the Vietnam war, nuclear war, Hilgartner et al, Nukespeak.

Advertising. There are many discussions of appeals of different types, especially appeals to emotions and attitudes. Rank's The Pitch includes a useful scheme for analyzing the claims, appeals, presentation of advertisements. Leech, English in Advertising gives many good examples of poetic language in advertising; see also the papers in di Pietro (ed), Linguistics and the Professions. Barthes Mythologies, Leo Spitzer "American advertising explained as popular art" show how advertising uses and reveals popular cultural myths. Unscrupulous claims and pseudo-logical appeals are discussed in Geis The Language of Television Advertising. Stevens, I Can Sell You Anything.

Language and subordinate groups. The names, adjectives, and other expressions used toward members of subordinate or enemy groups fall into two main patterns. Members of the target group are branded as less than human, savages (American Indians), animals (black slaves); or as childlike and dependent, without the full weight of adults (women, blacks). Haig Bosmajian's Language and Oppression; Wolfson & Manes, Language of Inequality; Farb, Word Play.

Language and women. Unique to the situation of women are limitations of linguistic choices that make them invisible: e.g. the lack of a neutral 3rd

709

person pronoun, the generic use of masculine pronouns, the masculine names of certain professions and positions. There are many studies of words about women, striking in the aggregrate because they demonstrate that the negative value typical of such words is deeply entrenched in the lexicon. (Casey & Swift, Words and Women, the NCTE Language and Sexism.) This area of study supports strongly the claim that patterns of talk reveal patterns of thought, the weak Whorf-Sapir hypothesis. The discussion of muted groups in Cheris Kramarae, Women and Men Speaking makes the point in another way: the subordinate position of women is shown by the fact that many important experiences of women have no words in the language.

Powerless language: There is a powerless style of talk, which is very close to the stereotype of women's language. In a social and political context, then, stereotypic women's language should be seen as powerless language. This conclusion is based on evidence about the contexts in which women talk in the powerless style; and about highly structured contexts in which powerless language depends on factors other than gender. Study of this topic begins with the question, Do women talk according to the stereotype? The answer is, yes --with certain exceptions. The exceptions are interesting: contrary to the stereotype men talk more and interrupt more than women do (indicating that they are in power). Otherwise the stereotype is generally not far off. This has been established by research which, with increasing sophistication, examines the function of utterances in discourse. Early research simply counted structures of different types. There is not much difference in how many questions are asked by men and women; but they have different functions. Men's questions tend to establish control, while women's questions tend to support topics established by others. However, in structured situations such as courtrooms and police stations, people in subordinate positions stereotypic women's language, regardless of sex. In these structured situations, moreover, women in powerful positions do not speak this way. One can talk therefore of a powerful and powerless style. Research by William O'Barr, Fay Crosby is crucial here; see articles by Carole Edelsky for helpful summaries.. Brown & Levinson's theory of politeness is useful in explaining the characteristics of powerless language in a principled manner.

Language and the professions. Social scientists have begun to study how professionals use language to control and to enhance their own power. The most obvious situation is the professional interview, but the field is widening to include technical professions such as neuroscience, engineering, in which interviews play little or no role. The human services professions, including medicine, therapy, education, are most often discussed. See Di Pietro(ed), *Linguistics and the Professions.* Fowler et al.(eds)*Language and Control.* ; Labov and Fanshel, *Therapeutic discourse.*;Fisher and Todd (eds), *The Social Organization of Doctor Patient Communication;* Alatis and Tucker (eds), *Language in Public Life.* The approach is more historical in Hudson *The Jargon of the Professions.* JoAnne Browne, "Professional Language: words that succeed" in *Radical History Review* (1986). Law is the most-studied professional area. See Charrow and Charrow on the language of jury instructions; O'Barr's *Linguistic Evidence: Language, Power and Strategy in the Courtroom*. The classic in the analysis of legal language is Mellinkoff, *The Language of the Law.* James White, *The Legal Imagination,* discusses legal thought and expression. Journals such as *Text, Language in Society, Discourse Processes, Journal of Pragmatics* frequently print articles on relevant topics.

Barthes, Roland. Mythologies.

Bosmajian, Haig. Language and Oppression.

Edelman, Murray. The Symbolic Uses of Politics. Political Language.

Ellul, Jacques. Propaganda.

Geis, Michael. The Language of Television Advertising.

Hart, Roderick. Verbal Style and the Presidency.

Hayakawa, S. I. Language in Thought and Action.

Hilgartner, Stephen, Richard Bell, and O'Connor. Nukespeak.

Kramarae, Cheris, M. Schulz, W. O'Barr (eds). Women and Men Speaking.

Lakoff, George & Mark Johnson. Metaphors We Live By.

Lippman, Walter. Public Opinion.

Mellinkoff, David. The Language of the Law.

Miller, Casey & Kate Swift. Words and Women.

O'Barr, William. Linguistic Evidence: Language, Power, & Strategy in the Courtroom.

Orwell, George. The Orwell Reader.

Rank, Hugh. The Pep Talk: How to Analyze Political Language.

Stevens, Paul. I Can Sell You Anything.

& readings from original sources, e.g. Swift, A Modest Proposal; Hitler, Mein Kampf; speeches of Roosevelt, Churchill.

Title	**Language Planning**
Level	Recommended: Introduction to Linguistics. Open to graduate students
Description	This course provides an opportunity for students to learn about international language planning from a sociolinguistic perspective. In this connection, it examines the interaction between official and indigenous languages as well as the role of minority groups in national policymaking. It also highlights language as a cultural, political, and social marker.
Required Readings	Text:Schweda-Nicholson, Nancy, ed. 1986. Languages in the International Perspective. Norwood, NJ: Ablex. Additional articles taken from Language Problems and Language Planning, Language Monthly, The Linguist, AILA Review, and other journals and official government language policy documents.
Syllabus	Language Policy and Global Interdependence Role of Arabic Language Academies in Language Plannning ESL Programs for Immigrants in Canada Movement to Include Kiswahili in the OAU Foreign Language Broadcasting by World Powers Interface Between Quechua and Spanish in Ecuador Court Interpreters Act of 1978 and Language Policy Development in Interpretation for Non-English Speakers in the American Judicial System Language Planning for Education in Niger Writing System Reform in Turkey
Requirements	Midterm, oral report, research paper, class participation, final exam.
Source	University of Delaware Instructor: Robert Di Pietro

from the Ann Arbor case." Journal of Reading; 24: 150-54.

BILINGUALISM

Acosta, Teresa. 1987. "A nation of many pasts, faces." USA Today; 13 (February): 12A.

Alatis, James. 1978. International Dimensions of Bilingual Education: Georgetown University Roundtable on Language and Linguistics. Washington, DC: Georgetown U Press.

Bowen, James and Jacob Ornstein. 1976. Studies in Southwest Spanish. Rowley, MA: Newbury House.

Diamond, Stanley. 1987. "We need laws to keep English first." USA Today; 13 (February): 12A.

Elias-Olivares, Lucia, ed. 1983. Spanish in the U.S. Setting: Beyond the Southwest. Rosslyn, VA: National Clearinghouse for Bilingual Education.

Engrossed Assembly Substitute Amendment 1 to 1975 Senate Bill #126, State of Wisconsin (LRB-9630/1).

Fishman, Joshua. 1980. "Language policy: Past, present, and future." In Charles Ferguson and Shirley Heath, eds., Language in the USA. New York, NY: Cambridge U Press.

Fernandez, Roberto. 1983. "English loan-words in Miami Cuban Spanish." American Speech; 58: 13-19.

Henry, William. 1983. "Against a confusion of tongues." Time; 121 (June).

Hernandez, Antonia. 1987. Don't enact these discriminatory laws." USA Today; 13 (February): 12A.

Kjolseth, Rolf. 1972. "Bilingual education in the United States: For assimilation or pluralism?" In Bernard Spolsky, ed., The Language Education of Minority Children. Rowley, MA: Newbury House. pp. 94-121.

"Losing Control of the Borders." 1983. Time; 121 (June).

Macias, Reynaldo. 1979. "Language choice and human rights in the United States." In James Alatis and G. Richard Tucker, eds., Language in Public Life: Georgetown University Roundtable on Language and Linguistics. Washington, DC: Georgetown U Press. pp. 86-101.

Madsen, William. 1973. The Mexican-Americans of South Texas. 2nd ed. New York, NY: Holt, Rinehart & Winston.

Nash, Rose. 1970. "Spanglish: Language contact in Puerto Rico." American Speech; 45: 223-33.

----------. 1971. "Englanol: More language contact in Puerto Rico." American Speech; 46: 106-22.

"The New Ellis Island." 1983. Time; 121 (June).

Omicinski, John. 1987. "Language laws a recipe for trouble." USA Today; 13 (February): 12A.

Swanson, Maria. "Bilingual education: The national perspective." In Gilbert Jarvis, ed., ACTFL Review 5: Responding to New Realities. Skokie, IL: National Textbook.

Thompson, Roger. 1975. "Mexican-American English: Social correlates of regional pronunciation." American Speech; 50: 18-24.

Tonnesen, Thomas. (In Press). Ethnicity and Public Policy: Language.

"U.S. English" (brochure).

"We don't need laws to put English first." 1987. USA Today; 13 (February): 12A.

Syllabus This is a case-study course with introductory lectures by the instructor. Students will then form discussion groups. One member from each group will report on the group discussion when the entire class again meets.

Requirements Two essay question exams

Source University of Wisconsin-Green Bay
Instructor: Donald W. Larmouth

Title **Language Typology & Language Universals**

Level Graduate/undergraduate. Prerequisites are junior standing and Fundamentals of Linguistic Analysis, but for language majors the course prerequisite will be waived.

Syllabus This course has to do with the grammatical structure of human languages. Discussions will focus on determining which grammatical characteristics are unique to a given language and which are not in that they recur in more than one language and, possibly, in all human languages.

Roughly two-thirds of the semester will be spent discussing these questions on a general level. The remainder will be devoted to the analysis of some of the major languages of the world in order to determine which of their grammatical features are specific to them and which of them are universal.

Required Reading Text: Greenberg, Joseph H. 1966. Language Universals. The Hague: Mouton.

Suggested Readings

Eckman, Fred R. 1977. Current Themes in Linguistics: Bilingualism, Experimental Linguistics, and Language Typologies. Washington, DC: Hemisphere.
Greenberg, Joseph H., ed. 1966. Universals of Language. Cambridge, MA: MIT Press.
Greenberg, Joseph H., ed. Universals of Human Language. Volumes I, II, III, IV. Stanford, CA: Stanford U Press.
Li, Charles., ed. 1976. Subject and Topic. New York, NY: Academic Press.
Ruhlen, Merritt. 1976. A Guide to the Languages of the World.
Voegelin, C.F. and F.M. Voegelin. 1977. Classification and Index of the World's Languages. New York, NY: Elsevier.

Syllabus

Introduction
Lexical Typologies
Syntactic Typologies
Phonological Typologies
Markedness Theory

Requirements Three tests, one paper, class participation.

Source University of Wisconsin-Milwaukee
Instructor: Edith Moravcsik

Title	**The Languages of Science Fiction and Fantasy**
Description	The course investigates the kinds of languages appearing in speculative fiction to determine how they function in their worlds, and compares and contrasts them with what we know about real languages in the real world. The subject will be examined through various aspects of language, in fiction, and in reality.
Required Readings	Texts: Bester, Alfred. The Computer Connection. Burgess, Anthony. A Clockwork Orange. Delany, Samuel R. Babel-17. LeGuin, Ursula K. A Wizard of Earthsea. Orwell, George. 1984. Tolkien, J.R.R. The Lord of the Rings.
Suggested Readings	Clement, Hal. Cycle of Fire. Laumer, Keith. Envoy to New Worlds. Silverberg, Robert, ed. The Science Fiction Bestiary. Simak, Clifford D. City. Vance, Jack. The Languages of Pao.
Syllabus	Language and Non-Humans The Origin of Language The Nature of Language Language Change, Pidgins, and Creoles Language and Thought The Limits of Change
Requirements	Three essay tests, one short paper.
Source	University of Wisconsin-Milwaukee Instructor: Barbara Wheatley

Title **Languages of the World**

Level Prerequisite: Introduction to Linguistics

Description This course is conceived for students who wish to learn about some distinctive characteristics of various languages of the world, but do not wish to major in linguistics. As any other linguistics course, its ultimate goal remains to understand how verbal language works from both a formal and a social perspective. We will focus on linguistic diversity from the typological points of view of how the structures of the different language varieties and the principles governing their use vary cross-culturally.

Because most of the students will not be linguistics majors, we will concentrate more on the functional aspects of the morphosyntactic categories of the languages covered rather than on their formal descriptions. The areas of discussion will include the following: "tense" and "aspect" (as linguistic devices for expressing time); "mood" (as a linguistic device to communicate the speaker's attitude toward what he is relating); "number" (e.g., how the meaning of "plurality" varies from one culture/language variety to another; differences between singulative and classifying systems); incorporation of gender/sex distinctions in language and their association with sexism, organization of the universe of personal pronouns (significance of sex, inclusion/exclusion, lineage distinctions); usage of honorifics/titles and of (first) names and different conventions for allocating social status and establishing social distance or for communicating respect/deference and many others.

Languages will be selected in terms of how they illustrate any of the above properties best. They will certainly include 1) "native Englishes"; 2) pidgins/creoles; and 3) English, French, Spanish, German, Russian, and other relevant languages.

Required Reading
Shopen, Timothy, ed. 1979a. Languages and Their Speakers.
____________________. 1979b. Languages and Their Status.

Syllabus
Formal Structure of Verbal Language 1: Vocabulary/Syntax
Formal Structure of Verbal Language 2: Phonology/Morphology/Syntax/Semantics
The Meaning of "Knowing a Language": Sociolinguistics/Pragmatics
Language Classification: Genetic/Typological
Vocabularies as Cataloguing Systems.
Different Address Systems and Usage of Honorifics.
Pronomial Systems.
Gender.
Number Delimitation.
Tense, Aspect and Mood.
Syntactic Types

Requirements Written project, class participation, midterm.

Source
University of Georgia
Instructor: Salikoko S. Mufwene

INNOVATIONS IN LINGUISTICS EDUCATION 1.2 (1980), 25-52.

LANGUAGES OF THE WORLD: A SEMI-INDIVIDUALIZED INTRODUCTORY LINGUISTICS COURSE*

by

Alice Faber
and
Hatte R. Blejer

The University of Texas at Austin

Introduction

During the Spring of 1979, four sections of Linguistics 306, a freshman level Introduction to the Study of Language, for non-majors, at the University of Texas, were devoted to 'Languages of the World'. The topic was repeated for one section in Summer 1979 and two sections in Fall 1979, and three additional sections, including one honors section, were 'variations on the theme'. These sections are generally staffed by Assistant Instructors (advanced graduate students), although regular faculty members do sometimes teach the course. Each section has a Teaching Assistant attached to it. The average class size is 30 students; classes meet for three hours a week.

Each student who was enrolled in a 'Languages of the World' section selected a language/nation pair from an extensive sign-up sheet[1]. Throughout the semester, assignments were given in which students answered questions about their language and/or country. Grades on these 'notebook' assignments contributed heavily to the students' grades for the course.

Our motivation in designing the course was simply that most of our students had been taking Linguistics 306 to fill a distribution requirement in Social Sciences or Communication Skills. Most have little interest in the synchronic and diachronic language study traditionally taught in introductory Linguistics courses. The majority of these students will never take another Linguistics course; thus, an in-depth introduction to

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*We would like to thank Marianna DiPaolo and Susan Schmerling for their comments on an earlier draft of this paper. We would also like to thank our students for their patience in bearing with our 'experiment', and our assistants, James Cranfill, Charles Kirkpatrick, David Ladyman, and Douglas Thomas, for their help in making the course successful. Thanks are also due to our supervisor, Robert Wall, for encouraging us to experiment.

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linguistic analysis would not serve their needs. On the other hand, a certain subset of our students WILL continue to take Linguistics courses. Some of these are 'major-shopping'; others are taking a four or five-semester sequence in Linguistics as a substitute for a foreign language requirement. These students need to be given a realistic idea of what to expect in upper division Linguistics courses.

We felt that we could best serve BOTH groups of students by asking each student to master details about one language structure (other than English), and to examine the extent of social and regional variation, or multilingualism, in one country. Through class discussions following each notebook assignment, students would be made aware of the extent of variation among languages in case systems, consonant inventories and literacy rates, etc. Students were expected to give short presentations concerning interesting aspects of their languages.

Many of the students who take Linguistics 306 as a substitute for a foreign language do so because of a previous unsatisfactory experience in a foreign language course in high school or college. As a consequence of their unfortunate experiences, these students are often pessimistic about their abilities to acquire a foreign language, and sometimes scornful of any aspect of another language or culture. Thus, in previous semesters, linguistic examples drawn from other languages had frequently been met with guffaws, disinterest, or disbelief. We hoped that, in developing an interest in and knowledge of some other language and/or country, our students would become more confident of their own abilities to cope with other languages and cultures and less intolerant of anything foreign.

We had initially expected two groups of students to be especially attracted by the format of our course: students who had for whatever reason been fascinated by a given language or country, and students who are preparing for careers that will take them overseas or bring them into contact with other cultures. Included in the first group were students who grew up overseas because their parents were in the military. Included in the second group were students majoring in such areas as International Business or Petroleum Land Management.

In addition to the above two groups of students, we encountered a third group, larger than either of the other two. These are students who took advantage of the extended series of assignments to investigate their linguistic and cultural roots. The following languages have been selected by at least one roots-seeker: Yiddish, Chipewa, Flemish, Italian, Irish, Norwegian, Czech, Spanish, Korean, Nahuatl, Hebrew, German, Swedish, Yoruba and Greek.

Course Structure

All sections of 'Languages of the World' have covered most of the topics in Fromkin and Rodman, *An Introduction to Language*, second edition. The order in which topics are covered was changed slightly to match the order of the notebook assignments. In addition, all sections were quizzed at intervals and completed five or six problem sets; the notebook assignments took the place of major projects like term papers. At no point did we test the students on the notebook assignments.

Summary of the Notebook Assignments

Below are summarized the notebook assignments that we used. The complete texts of the assignments are given in Appendix B.

1. Background and Writing System: Where the language is spoken and by whom; how, if at all, it is written.

2. Phonology: preparation of consonant and vowel charts for the language, highlighting systematic differences between it and English.

3. Morphology: morphological categories (case, gender, tense, etc.) and their expression in the language; in general, the complexity of the morphology.

4. Word order typology: the relative orders of major sentence constituents in the language.

5. Meaning: investigation of one of the following—kinship/color terminology, the Whorfian hypothesis, or formal/informal pronominal address/reference systems.

6. Sociolinguistics: Investigation of one of the following: the extent and degree of government encouragement and/or tolerance of bilingualism, or factors influencing the growth of a standard language in the country.

7. Grab-bag: Investigation of one of the following: the history of literature in the language, the extent of dialect variation in the country, the rate of literacy in the country, the development of the language as a pidgin/creole, and the status of the language *vis-à-vis* other major languages in the country.

The assignments that we gave are appropriate in level and depth to a lower division one-semester introductory course. The specific assignments used in an upper division or two semester course would presumably be adjusted to the depth at which topics are normally covered in such a course.

Language Selection

Before the first semester began, we prepared an extensive list of language/nation pairs and determined the maximum number of students we would allow to work on each pair. This maximum was based on our assessment of how much material would be available in the University of Texas libraries on a given language or nation; instructors at other institutions may need to vary the list to suit the strengths of their research libraries.

Since one purpose of the assignments was to broaden the students' linguistic horizons, we discouraged them from selecting English and the commonly taught western languages. If a student selected a language for which there was little useful material available (e.g., some Amerindian languages, Celtic languages, Dutch, Afrikaans, Korean), we consulted with him/her early in the semester about research tactics, and throughout the semester as difficulties arose. We especially encouraged students to consult with 'experts' in their languages, including graduate students and faculty in Linguistics and foreign language departments. In grading the assignments, we considered difficulties the students were having finding material so that no student would be penalized for having chosen a 'difficult' language.

It is impossible to predict in advance which languages will cause difficulties. In some cases, the difficulties can be avoided only if the student has a reading knowledge of French or Spanish. Consequently, the instructor must be sensitive to the problems that students may have and must seek to differentiate inadequate jobs resulting from laziness on the students' part from inadequate jobs resulting from lack of material.

Library Orientation

Many of our students are not familiar with the University of Texas library system, and are inadequately prepared to do library research using primary sources. One of the goals of this course was to provide them with basic research skills. Therefore, we arranged with the Special Services Department of the University of Texas General Libraries to provide our students with orientation to the Perry-Castaneda (central) library. The library staff prepared a bibliographic handout listing general handbooks about languages and language families, sources of statistical information, and general linguistics bibliographies.[2] In addition, during the first week of classes, all students were required to take a tour of the library, which introduced them to United Nations statistical publications, Statistical Abstracts from around the world, US government documents, ERIC indices and the Human Relations Area Files. This orientation showed the students potential sources for their assignments, as well as demystifying the library for them; PCL is the largest open stack library in the United States.

General Problems

Most of the problems encountered in teaching this course can be avoided if the instructor anticipates the difficulties that students will have in researching a particular language/country pair. The instructor should arrange to consult with students about bibliography early in the semester. If the instructor allows the students to choose among several alternative topics for a given assignment, he/she should indicate to the students which topic is most appropriate for a given language/country. Many students in an introductory Linguistics course are unable to evaluate the quality of the source material that they locate. We found that it was helpful to have students bring books that they found to us so that we could help them in this evaluation. We sometimes found it necessary to accompany students to the library, if for no other reason than to recall books that were checked out to faculty members. In general, we found that the more individual consultation we were willing to provide the students with, the more satisfactory the course experience was for them.

Student Performance

In terms of student performance, the Languages of the World format was an unqualified success. Because such a large portion of the class grade was based on a reasonably well-spaced series of assignments rather than on one large assignment like a term paper, students could not defer their work until the last week of the semester. Therefore, student performance was more consistent and consequently better than in our classes in previous semesters. Although the total amount of time spent on the seven notebook assignments is probably comparable to that spent researching and writing a good five-to-ten-page term paper, the fragmented nature of the assignment was easier for the students to deal with, and a much higher number of them than we had anticipated did truly outstanding jobs. Consequently, the overall grades in the course were high.

Furthermore, students with a special interest in a particular language and/or country were motivated to excel on all of the notebook assignments. And, in most instances, even students who had simply picked a particular language/country pair because no one else had picked it yet exhibited increasing enthusiasm during the course of the semester. Finally, we feel that student performance in all aspects of this introductory Linguistics course was better because each student was able to apply newly acquired linguistic concepts to his/her own language.

Student Response

In general, student response to the Languages of the World assignments was positive. Some students felt that too much work was required for an elective course. However, even though a few students were initially intimidated by the idea of working with a foreign language, most students remarked that the notebook assignments were a 'valuable learning experience'. Here are some of the comments we received on our Course-Instructor Survey forms:

> "I enjoyed doing the notebook because it gave insights into other languages besides English and also made me more aware of differences and similarities between languages."
>
> "The projects were very educational. The third project [morphology] was the most difficult. The fourth project [syntax and word order] was interesting..."
>
> "The Research Project was especially valuable because I learned how to use the UT library system. Before this class I had never walked in a library on campus."
>
> "I totally enjoyed the language assignment. I feel that I have REALLY learned something—not just from reading chapters and memorizing but a language! That's great!"

For two sections, a multiple choice question concerning the assignments was included on the questionnaire: "I found the notebook assignments were rewarding." The responses were as follows:

Definitely agree	5
Agree	10
No opinion	5
Disagree	3
Definitely Disagree	2.

APPENDIX A: Language/Country Pairs

(An * next to a language indicates that at least some students had difficulty finding adequate material in English for that language.)

SPANISH—Puerto Rico, Southwestern United States, Cuba, Spain, Peru, Mexico, Paraguay, Guatemala, Philippines.

GERMAN—United States (Pennsylvania Dutch and Texas), Switzerland, Germany.

FRENCH—France, Canada, Cameroon, Algeria, Morocco, Tunisia, Lebanon, Haiti, Belgium, Senegal, Switzerland, Zaire.

ENGLISH—United States, Great Britain, India, Republic of South Africa, Australia/New Zealand, Canada, Ireland, Kenya, Jamaica.

*YIDDISH——United States, Israel, Argentina, USSR.

*DUTCH——Netherlands.

FLEMISH—Belgium.

*AFRIKAANS—Republic of South Africa.

ITALIAN—Italy, Argentina, Switzerland.

PORTUGUESE—Portugal, Brazil.

RUMANIAN—Rumanian.

ARABIC—Algeria, Morocco, Tunisia, Libya, Egypt, Sudan, Lebanon, Syria, Israel, Iraq, Saudi Arabia, Gulf States.

CATALAN—Spain.

PROVENÇAL—France.

BASQUE—Spain, France.

ROMANY—England.

AMHARIC—Ethiopia.

HEBREW—Israel.

*BERBER—Algeria, Morocco.

Appendix A

HAUSA—Nigeria.

GALLA—Ethiopia.

SOMALI—Somalia.

SWAHILI—Kenya, Tanzania.

KHOSA(XHOSA)—Republic of South Africa.

DINKA—Sudan.

KRIO—Sierra Leone.

DANISH—Denmark.

FINNISH—Finland.

WELSH—Great Britain.

*GREEK—Greece, Cyprus.

POLISH—Poland.

*CZECH—Czechoslovakia.

SERBO-CROATIAN—Yugoslavia.

RUSSIAN—USSR.

UKRAINIAN—USSR.

GEORGIAN—USSR.

ARMENIAN—USSR.

ALBANIAN—Albania.

PERSIAN—Iran.

HUNGARIAN—Hungary.

*SCOTS GAELIC—Great Britain.

*BRETON—France.

*IRISH—Ireland.

NORWEGIAN—Norway.

PASHTO—Afghanistan.

KURDISH—Iran, Iraq, USSR.

GUJARATI—India.

LITHUANIAN—USSR.

ESTONIAN—USSR.

LAPP—Finland.

BULGARIAN—Bulgaria.

ZULU—Republic of South Africa.

LUO—Kenya, Tanzania.

SWEDISH—Sweden.

HINDI—India.

IGBO(IBO)—Nigeria.

TUPI—Brazil.

*QUECHUA—Bolivia, Peru.

GUARANI—Paraguay.

*NAHUATL—Mexico.

SRANAN—Surinam.

PAPAMIENTO—Curaçao.

HAITIAN CREOLE—Haiti.

ESKIMO—Greenland (Denmark).

ALEUT—United States, USSR.

*NAVAHO—United States.

*HOPI—United States.

Appendix A

AYMARA—Bolivia.
CARIB—Brazil.
PILIPINO—Philippines.
TAGALOG—Philippines.
KHMER—Cambodia.
VIETNAMESE—Vietnam, United States.
MUONG—Vietnam.
THAI—Thailand.
LAO—Laos.
BURMESE—Burma.
MALAY—Malaysia.
BAHASA INDONESIAN—Indonesia.
MACEDONIAN—Greece.
NEO-ARAMAIC—Israel, Syria, Iraq.
NEPALI—Nepal.
TURKISH—Turkey, Cyprus.
(LU)GANDA—Uganda.
BAMBARA—Senegal.
FULANI—Senegal, Nigeria.
CHICHEWA—Malawi.
WOLOF—Senegal, Gambia.
YORUBA—Nigeria.
MALTESE—Malta.
SAMOYED—USSR.
TELUGU—India.
MAYALAYAM—India.
CEBUANO—Philippines.
MAORI—New Zealand.
ILOCANO—Philippines.
HAWAIIAN—United States.
GILBERTESE—Gilbert Islands.
JAPANESE—Japan.
CHINESE—China, Taiwan.
*KOREAN—Korea
OSSETIC—USSR.
BALUCHI—Iran, Afghanistan.
AZERBAIJANI—USSR, Iran.
SINHALESE—Sri Lanka (Ceylon).
TAMIL—India.
KANNADA—India.

In addition to these language/country pairs, students were allowed to select pairs not listed. So, for instance, a student who had grown up in a town with Seneca speakers chose to research Seneca/United States, and a student who had been in the Navy on Guam decided she wanted to learn about a language which she had come into contact with there, Chamorro.

APPENDIX B:

Notebook Assignments and Bibliography

General Bibliography

(Those items that were listed on the Library Orientation handout are marked with an *. The annotations accompanying those items are taken from the handout. Although the general bibliography was especially helpful for Notebook #1, it was also useful for other notebook assignments.)

*Giliarevskii, Rudzhers Sergeevich. 1970. *Language Identification Guide.* Moscow: Nauka Publication House.
"Over 225 languages are discussed here, and for each language the alphabet is provided, as is a quotation (untranslated) and short descriptive comments on the language and speakers."

*Katzner, Kenneth. 1975. *The Languages of the World.* New York: Funk & Wagnalls.
"This entertaining and very readable guide is arranged in three sections. The first consists of broad essays concerning the major language families of the world. The second is composed of descriptive articles on nearly 200 languages, with each article containing a quotation (with translation) from the language. The third section is a country by country survey, which provides basic information on languages spoken in various lands. An index of languages and language families is provided."

*Nida, Eugene Albert. 1972. *The Book of a Thousand Tongues*, rev. ed. London: United Bible Societies.
"This book contains entries for 1,339 languages and dialects into which some part of the Bible has been translated. Each entry includes a quotation from the Bible in the appropriate language and a brief description of the language's speakers."

Ruhlen, Merritt. 1975. *A Guide to the Languages of the World.* Palo Alto: Stanford University Language Universals Project.

*United Nations Education, Scientific and Cultural Organization. 1963-. *Statistical Yearbook.* Paris.
"Statistics which are supplied for some 200 countries and territories of the world include: population figures, illiteracy rates, educational attainment of the population, and educational enrollments and expenditures..."

*Voegelin, C. F. and F. M. Voegelin. 1977. *Classification and Index of the World's Languages.* New York: Elsevier.

"Articles for broad language groupings and language families are arranged alphabetically. Each article provides a brief description of the grouping, including information regarding the number and localities of speakers, and listings of the various language members of the group. There is an index for names of groups, subgroups, individual languages, dialects and tribes. Obviously, this volume is of great value in determining language relationships and affiliations."

Appendix B

Notebook #1

Determine the following information about your language:

1. In what countries is it spoken, besides your country?
2. How many speakers does it have in your country? In other countries?
3. Is it a majority or a minority language? Does it have official status?
4. Is it written? Is it taught in the schools? If so, is it taught to everyone, or only to a minority? Are schools conducted in it?
5. To what extent does it have a literature? Is it a folk literature? Are newspapers published in your language in your country?
6. What other languages is your language related to?

Now, focus on the writing system of your language. Answer ONE of the following questions:

1. If your language is not written, try to find out why not. Is there some other language that is regularly used in your country? Is the government actively trying to suppress the language? If the government is trying to encourage literacy in your language, how much success is the program having? What factors are influencing the program? Are there any outside groups (e.g. Peace Corps, missionaries) helping?

2. If you are doing English, discuss Noah Webster and his influence on American English spelling. How does the spelling of American English differ from that of British English? Give lots of examples. ALTERNATIVELY, you may discuss the Initial Teaching Alphabet and other attempts to facilitate the teaching of reading by using a 'simplified' alphabet.

3. If your language is written in substantially the Latin alphabet, how does the writing system differ from that of English? Are there any letters used for writing your language that English doesn't have? Does English have any 'extra' letters? What kinds of diacritics does the language use to extend the inventory of symbols? Do all of the letters stand for the same sound as in English? Give a complete listing in 'alphabetical' order. Where in the order are the extra symbols added?

4. If your language is ordinarily written in something other than the Latin alphabet, where did the symbols come from? Is there any relationship between your writing system and the Latin alphabet? If so, what? What kind of writing system is it (alphabetic, consonantal, ideographic, syllabic)? If you have problems deciding, discuss the problems. If it's feasible (if you can do it in less than one page) give a listing of all the symbols. If not, give a reasonable sampling, say, the symbols needed to write your name. In any case, make sure that you

indicate approximately what sound each symbol represents.

If there is more than one writing system used for your language in the same country, discuss the differences. Is one considered simpler than the other? Does one have unfortunate political connotations that cause the government to want to suppress it? Do the differences correspond to ethnic differences in the population?

Appendix B

Notebook #2

Your first concern for this notebook assignment will be to locate a GOOD, UP-TO-DATE source which describes the sounds of your language. This source can be an elementary textbook, a grammar, or a bilingual dictionary of your language. Some of you may have trouble locating such a source. You may need to find, instead, journal articles describing your language, or, perhaps, chapters from an anthology of articles on languages of your language family or geographical area.

1. List the sounds of your language.

2. Give a description of these sounds, as given in your source, e.g. *a* as in 'father', a low, back unrounded vowel. To do this, you may need to use a dictionary, or even a dictionary of linguistics terminology. For every term that you mention that has not been discussed in class, you should give a definition that shows that you understand the use of the term in your source.

3. To the extent that it is possible, interpret the descriptions your source gives in the light of the terms we have used in class and those given in your textbook. So, for instance, 'spirant' = 'fricative'.

4. If applicable, comment on the adequacy of the descriptions given by your source. Some of you will find sophisticated, even overly technical linguistic descriptions; others will find your sources naive and not detailed enough.

5. Make a chart of the sounds of your language based on those given in class and in your textbook. Make sure you indicate which of the stops and fricatives are voiced and which are voiceless. You may need some different categories for your language; for instance, many of you will find that *n*, *t*, *d*, *s*, *z*, *l* (and maybe *r*) are dental rather than alveolar. Similarly, the vast majority of languages will not have an *r* resembling *r* in English. If you have to guess about how to categorize a given sound, justify your guess based on the description that your source gives. This explanation, if needed, should be included in your write-up.

6. Make sure to include a bibliography.

Notebook #3

You will need a handbook or grammar of your language; a dictionary is not enough for this project. A grammar with chapters on various parts of speech with illustrations from the language is the best source.

Give examples from your language of as many of the following types of phenomena as you can locate in your source. (For some of these categories there may be no equivalent in your language.) You must also include English glosses.

1. Give examples of definite article/indefinite article and an accompanying noun. E.g.,

definite: *the boy* indefinite: *an apple, a boy*

If your language differs from English in any way describe the difference; e.g., article and noun written as one word, article has allomorphs, different definite or indefinite articles depending on noun class or some other factor, article changes depending on number (singular/dual/plural), or gender (masculine/feminine/neuter).

2. Give examples of how your language expresses different tenses. If your source also discusses ASPECT, you should also give examples. E.g.,

present: *he walks, he is walking*
past: *he walked*
future: *he will walk, he is going to walk.*

3. Give examples of noun classes in your language; that is, are nouns divided into categories of gender or some other type of division? Is the division arbitrary, or is it based on innate attributes of the noun, e.g. inanimate versus animate? Give some plural examples too; are the same categories maintained in the plural? [Those of you doing Swahili and Amerindian languages should be on the lookout for noun classes which are not based on gender but on other features. Most of you with Indo-European languages will find that gender is the basis for your noun classes.] E.g.,

Hebrew:	*talmid*	*talmida*	*talmidim*	*talmidot*
GLOSS:	'student' (m.)	'student' (f.)	'students' (m. pl.)	'students' (f. pl.)

4. If your language does have noun classes, do other parts of speech AGREE with the noun classes, e.g. adjectives, articles, demonstratives, numbers, etc.? Give examples. Is the agreement maintained in the plural? Give examples of plural (and dual if your language has it). E.g.,

Standard Arabic:	*kalb jamil*	
GLOSS:	dog pretty	TRANSLATION: 'pretty dog (m.)'

Standard Arabic:	*kalba jamila*	
GLOSS:	dog pretty	TRANSLATION: 'pretty dog (f.)'
	kalban jamilan	
	dog pretty	'pretty dog (m. dual)'

5. Do verbs show AGREEMENT with their subject? (A few of you may also find agreement with the object—if so discuss this too. It will possibly be relevant in Amerindian.) If agreement with the subject varies according to tense and aspect, discuss this too. E.g.,

English: *he/she/it* (= 3 sg.) *walk + s*

[If your language does not show agreement with the SUBJECT but seems to behave very differently than the standard Indo-European examples on the handout and those discussed in class, you should see me to get help.]

6. What other meaning categories can be added to the verb stem, e.g. CAUSATIVE, PASSIVE, REFLEXIVE, RECIPROCAL (and possibly NEGATIVE if it's a 'bound morpheme')? Give examples. E.g.,

Amharic (SEMITIC; national language of Ethiopia):

gəddələ	'he killed'	SIMPLE MEANING
tə + gəddələ	'he was killed'	PASSIVE
ta + gəddəlu	'they killed each other'	RECIPROCAL MEANING
ləbbəsə	'he got dressed'	SIMPLE MEANING
a + ləbbəsə	'he made or caused someone else to get dressed'	CAUSATIVE MEANING

7. (A) Give examples of various prepositions plus nouns (e.g. *on, to, in, at, near*). Does the preposition cause the noun to change its form? Do different prepositions affect nouns differently? In some languages certain CASES may co-occur with particular prepositions. Does your language use CASE to express the same thing as is expressed by preposition plus noun in English? (E.g., Latin DATIVE case to express such things as *give the book TO the man*, or in some languages a special case to express LOCATIVE, such as *IN the house*.) PLEASE SEE ME SOON IF YOU ARE NOT SURE IF YOUR LANGUAGE HAS CASE OR WHAT CASE IS.

(B) If your language marks DIRECT OBJECTS in any special way, give examples.

(C) If your language uses CASES, what other cases besides those you discussed in (A) and (B) above are there? Give examples.

8. Give examples of comparatives and superlatives. For example, in English *John is bigger than me*, *JOHN* is the 'standard' (to which something is compared), and the suffix *-ER* is the 'comparative marker'; the word *THAN* serves to mark the 'object of comparison' (=*me*).

Does your language have a comparative marker? Does it have an object of comparison marker? Or is the object marked by an ordinary preposition?

Notebook #4

If your language is English, do this assignment for Old English.

Using a relatively recent grammar book, find examples of the following constructions in your language:

1. Do adjectives precede or follow nouns?

E.g., English the big dog
ADJ NOUN

Adjectives precede nouns.

If there is any inconsistency or variation in the Adj-N order in your language, you should note it.

2. How are possessives arranged?

E.g., English the boy's dog
POSSESSOR HEAD

OR the king of the gypsies
HEAD POSSESSOR

English has both POSS-HEAD and HEAD-POSS.

3. Does the language have prepositions or postpositions? Does it have any elements that are somehow combinations of prepositions AND postpositions? What type of word predominates?

E.g., English on the table
PREPOSITION NOUN

a week ago
NOUN POSTPOSITION

English mostly has prepositions.

Amharic ˀə bet wəst
in house inside = 'inside the house'.
PREP. NOUN POST.

4. What is the basic word order in a sentence? How rigid is it?

E.g., English John kissed Mary
SUBJECT VERB OBJECT

Are there any circumstances under which alternate word orders are used?

E.g., English Away ran John
ADVERB VERB SUBJECT

Did John kiss Mary?
AUX SUBJECT VERB OBJECT

5. How does one negate a sentence in your language?

E.g., English

John	didn't	kiss	Mary
SUBJECT	AUX-NEG	VERB	OBJECT

John	isn't	kissing	Mary
SUBJECT	AUX-NEG	VERB	OBJECT

6. DO ONE OF THESE ONLY:

(A) Does your language have auxiliary (helping) verbs or modals as separate words? If it does, do they precede or follow the verb?

E.g., English

I	have	eaten
SUBJ	AUX	VERB

John	will	eat
SUBJ	AUX	VERB

John	could	kiss	Mary
SUBJ	MODAL	VERB	OBJECT

English modals and auxiliaries precede the main verb.

(B) How does your language express yes-no questions? Is there a special word added just to show that the sentence is a question? If so, where in the sentence does this word go?

E.g., English

Did	John	go?
AUX	SUBJ	VERB

Will	John	go?
AUX	SUBJ	VERB

Add the word *do* if there isn't already an auxiliary word. Invert the AUX and the SUBJ. There is no special word, just to indicate that the sentence is a question.

(C) Does your language have a syntactic device for focusing on some noun? Other words that might be used for this in some books are TOPICALIZATION and CLEFTING. If your language has one of these devices, how is the focused noun marked, if at all?

E.g., English

It's	John	that	Mary	loves	____
	TOPIC		SUBJ	VERB	(John is somehow also the OBJECT)

This	I've	got	to	see
OBJ/TOP	SUBJ-AUX	VERB		

(D) How are relative clauses constructed in your language? Is there any remnant of the head noun within the clause? Is there any special marking either on the verb of the relative clause or on the head noun?

E.g., English	The	boy	[who	I	saw	_____]	ran away.
		HEAD	RC marker	SUBJ	VERB	(= boy)	

The relative clause follows the head noun.

If you have difficulty finding information for #1 or #2, you may substitute an additional question from #6.

Make a summary table of the word order patterns in your language:

E.g., Modern English

1. ADJ-Noun
2. Head-POSS or POSS-Head
3. Prepositions
4. SUBJ-VERB-OBJECT
5. Neg. precedes main verb
6. a. AUX-VERB
   d. Head-RC

DON'T FORGET YOUR BIBLIOGRAPHY!

Appendix B

Notebook #5

For this assignment, you will do ONE of the three questions. For each question, there are suggestions as to which languages provide interesting forms in answer to that question. It is recommended that you follow these suggestions.

1) (A) Words for members of the family are called KINSHIP TERMS. Often, kinship terms do not match from language to language.

Example One:	English	Latin
	uncle	patruus 'paternal uncle' avunculus 'maternal uncle'

Example Two:	English	Tamil
	son-in-law	maaple 'son-in-law, younger sister's husband'
	brother-in-law	attimbeer 'older sister's husband' maccina 'wife's brother'

Find out how to express in your language AT LEAST the following kinship terms. If you have a textbook, it may have a section on family members. Otherwise, you will need a dictionary. Be sure to transcribe or transliterate the terms you cite.

TERMS:
mother
father
sister
brother
sibling
parent(s)
son
daughter
grandmother
grandfather
grandchild
uncle
aunt
nephew
niece
brother/sister-in-law
son/daughter-in-law
mother/father-in-law

Does your language use the same word for any two (or more) of these relationships? Does it have two or more words corresponding to the same English term? If so, what's the difference? Give examples. Does there seem to be any derivational morphology involved, that is, is the word for *sister*, for example, based on the word for *brother*? Give examples of any derivational morphology.

(B) Read Brent Berlin and Paul Kay, *Basic Color Terms*. List the basic color terms of your language, along with their English equivalents. If your language is not inclųded in the Berlin and Kay survey, look up the English terms in an English-your language dictionary. The following situations are possible:

(a) your language has an exact equivalent for each English term.
(b) one English term covers the territory for two or more terms in your language.
(c) one term in your language covers several English terms.

Show how the English color terms and those in your language match up. Do any of the color terms in your language strongly resemble words for things that are that color?

Example One:	English	orange, 'fruit' and 'color'.
Example Two:	Amharic	səmmayawi, 'blue'; səmmaya, 'sky'.

You would find this out by looking up səmmayawi in the Amharic-English half of a dictionary (or textbook glossary) and looking at words near it on the page.

If you do this question, commentary is expected along with the words you cite. Make sure it is clear WHY you are citing each word, WHAT it's an example of, and what it means.

This question is best suited to people who are doing non-Indo-European languages.

2. If you are doing English, American Indian languages, or if you're interested in Anthropology, do the following:

Read the following articles in Benjamin Lee Whorf, *Language, Thought and Reality:*

A. "The relation of habitual thought and behavior to language", pp. 134-159.
OR
"Language, mind, and reality", pp.246-270.

B. "An American Indian model of the universe", pp. 57-64
AND "Grammatical categories", pp. 87-101.

C. OR "A linguistic consideration of thinking in primitive communities", pp.65-86.

You should end up reading either of the articles in Group A, and the articles in either Group B or Group C.

After you have done the reading, summarize Whorf's ideas about the relationship between thought and language. Do you think his ideas make sense? Why, or why not? Can you think of an experiment that could determine whether Whorf is right or not? Is your experiment realistic and/or feasible?

Appendix B

Your answer should have the form of a coherent four or five page essay. Make sure you differentiate between what Whorf thinks and what YOU think. When you refer directly to something Whorf says, indicate in which article he said it, and on what page.

3. In many languages there are different forms of address depending on the SOCIAL relationship between speaker and addressee. Many European languages have developed 'formal' and 'informal' 2nd person pronouns, e.g. Spanish *tú* (informal) and *Usted* (formal). In some Spanish dialects there are even more possible distinctions.

This question is suited for people working on (among others) the following languages: Rumanian, Spanish, French, Russian, Japanese, Korean, Dutch, Swedish, Norwegian, Italian, Afrikaans, Yiddish, and Thai.

(A) Read the article "The pronouns of power and solidarity" by Roger Brown and Albert Gilman, found in:

Giglioli, Pier Paolo (ed.). 1972. *Language and Social Context.* Penguin.
Fishman, Joshua (ed.). 1968. *Readings in the Sociology of Language.* Mouton.
Sebeok, Thomas (ed.). 1960. *Style in Language.* MIT Press.

(B) Describe the situation in your language with respect to the 'pronouns of power and solidarity'. Check all the sources mentioned in Brown and Gilman's bibliography for information on your language. Check also the bibliography (and comments) of the following sources:

Trudgill, Peter. 1974. *Socioloinguistics.* Penguin.
Lambert, Wallace. 1976. *Tu, Vous, Usted: A Socio-Psychological Study of Address Patterns.* Rowley, Mass.: Newbury House.

Compare your language's use of different forms of address with the situation in other languages as discussed in the Brown and Gilman article.

(C) If at all possible, find and summarize any material which explains how and when your language developed the forms of address in use today. You may have to look in books on the history of your language.

(Note to those doing Japanese, Korean, Thai, and perhaps other non-Indo-European languages: You may be dealing with a situation which differs somewhat from that of the pronouns described by Brown and Gilman; structure your discussion according to your language, not according to the situation in Indo-European languages.)

Notebook #6

For this assignment you will be investigating an aspect of language use in your country. You should consult with your instructor as to which option to choose if you are unsure.

A. Bilingualism (You MUST do this if you're doing a minority language.)

To what extent is there bilingualism in your country? Does the government recognize linguistic minorities? To what extent? What kind of commitment has been made toward educating minority children in their native language(s)? Are ALL children included in bilingual education programs, or just minority children? To what extent do political considerations affect bilingual education programs? Is there opposition to the idea? Why? Have there been recent changes in policy or attitude? Are there minority language books and newspapers published in your country? Is there minority language TV and/or radio? Are government documents and announcements bi- or multilingual? Is there a grass-roots movement to encourage or revive the use of a minority language?

B. Legal-Political Aspects of a Minority Language

In what language(s) are governmental proceedings such as legislative debate, bureaucratic regulations, executive orders, etc., carried out? Does only one language have official status, or are secondary languages allowed? In what language(s) are legislative proceedings, laws and regulations published? If minority languages are disallowed in these contexts, is there any attempt on the part of the government or private groups to provide translations for minority speakers and to facilitate the access of minorities to the government?

Are speakers of minority languages allowed to use their own languages in court, in bringing suit, testifying in their own defense, etc.? If not, does the judicial system provide for translation? Are indictments, court records, depositions, etc., allowed in minority languages?

Are public information and warning signs posted in minority languages? Is such posting required? Prohibited?

C. Language Standardization (Recommended for France, Germany, Italy, Arab countries)

Does your country have a distinction between 'standard' language and regional and/or socio-economic variants? How and when did this standard originate? Is there any kind of Language Academy to determine or enforce this standard? If so, how effective is it? What is the government policy about regional variation? Is there any extralinguistic factor that contributed to the development of the standard (e.g., a great literature, political domination of one region, etc.)?

If you are doing Arabic or Greek, you must deal with the question of DIGLOSSIA.

Notebook #7

There are four questions below, each about some aspect of language. Answer the one that you are most interested in. See your instructor for aid in choosing which question to research. In addition to the topics below, for this assignment you have a 'choose your own' option. If there is some issue about language in your country or about your language in general that you have run into in the course of your research for the previous six assignments, you may write about that instead with your instructor's permission.

A. Investigate the rise of a national literature in your language/ country. Was this part of a general nationalist movement? Were there any literary 'giants' who influenced the development of your national literature?

Do not do this question if you are doing the United States, Great Britain, France, Italy, Spain, Germany or Canada, unless you are doing a minority language in one of these countries.

B. Investigate dialect variation in your country. How much variation is there among dialects of your language? Discuss the factors that affected the development of dialects in your country. Is the dialect variation based on geography or social class? If so, which and how? Be specific.

You may answer the question by focusing on a specific dialect in your country. For example, if you are doing the United States, you may report on Black English, Appalachian English, Southern English, dialect variation in New England....

C. What percentage of the speakers of your language in your country can read and write it? How well? Have these figures increased or decreased in the past 25 or 50 years? If it has increased, what has brought about the increase? If they have decreased, what has brought about the decrease? What, if anything, is being done to increase literacy?

D. If your language originated as a pidgin, talk about the historical development, i.e. how did it originate? What are the component languages? What changes have taken place? Is the pidgin/creole becoming more like one or the other of the component languages?

If you are doing Hawaiian, Haitian French, Yiddish, or Black English, you should strongly consider doing this.

E. Is a 'world language' other than the language you are working on used in your country for education, technology, international commerce, or even for administration or judicial purposes? If so, is the use of this 'language of wider communication' authorized, tolerated, or discouraged by the government? Is there an attempt being made to establish a native language of the area for use in these contexts?

a. If your language is accorded official status, is it successfully competing with the established 'world language'?

b. If your language is not accorded official status, is it in danger of being replaced by a world language or the official native language of ,our country?

Selected Bibliography for Notebooks #6 and #7

Places to start:
the card catalog, general books on education in your country;
the indices on Bilingualism and Second Language Learning in library handout;
the New York Times Index (also indices to other newspapers);
the Reader's Guide to Periodical Literature.

The following sources may contain either information on your country or references to books and articles which are relevant to your country and your topic:

Anderson, Theodore and Mildred Boyer. 1970. *Bilingual Schooling in the U.S.* Washington, D.C.: U.S. Government Printing Office.

Hertzler, Joyce O. 1965. *A Sociology of Language.* Random House.

Ferguson, Charles. 1959. Diglossia. *Word* 15.325-340.

Fishman, Joshua (ed.). 1972. *Advances in the Sociology of Language.* The Hague: Mouton.

______________ (ed.). 1968. *Readings in the Sociology of Language.* The Hague: Mouton.

Fishman, Joshua, Charles Ferguson and Jyotirindra Das Gupta. 1968. *Language Problems of Developing Nations.* John Wiley and Sons.

Macnamara, John. 1966. *Bilingualism and Primary Education.* Edinburgh University Press. [Deals mostly with Ireland.]

Rubin, Joan and Björn Jernudd. 1971. *Can Language be Planned?* University of Hawaii Press.

Rubin, Joan, and Roger Shuy. 1973. *Language Planning.* Georgetown University Press.

Texas Education Agency. 1977. *Bilingual Education K-3 Resource Manual.*

UNESCO. 1965. *Report on an International Seminar on Bilingualism in Education.* London: Her Majesty's Stationery Office.

APPENDIX C:

Library Orientation Handout*

SELECTED SOURCES - LINGUISTICS

HANDBOOKS AND MANUALS

P
201
K35
REF

Katzner, Kenneth. 1975. *The Languages of the World*. New York: Funk and Wagnalls.

This entertaining and very readable guide is arranged in three sections. The first consists of broad essays concerning the major language families of the world. The second is composed of descriptive articles on nearly 200 languages, with each article containing a quotation (with translation) from the language. The third section is a country by country survey which provides basic information on languages spoken in various lands. An index of languages and language families is provided.

P
203
V6
REF

Voegelin, C. F. and F. M. Voegelin. 1977. *Classification and Index of the World's Languages*. New York: Elsevier.

Articles for broad language groupings and language families are arranged alphabetically. Each article provides a brief description of the grouping, including information regarding the number and localities of speakers, and listings of the various language members of the group. There is an index for names of groups, subgroups, individual languages, dialects, and tribes. Obviously, this volume is of great value in determining language relationships and affiliations. Other classifications of specific language groups are available in the Perry-Castañeda Library. To find them, look in the subject catalog for the subdivision 'Classification' under the desired language group (e.g., 'African Languages - Classification').

P
381
E93
A428
REF

Allen, C. G. 1975. *A Manual of European Languages for Librarians*. London and New York: Bowker.

Grammarians, translators and students of linguistics will find this extraordinary work useful, as will the librarians

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*Compiled by John Burlinson, Special Services Department, University of Texas General Libraries, January 1979.

Title	**Linguistics and Related Disciplines: The Linguistic, Philosophical, and Political Thought of Noam Chomsky**
Level	No prerequisites
Description	Noam Chomsky's scholarship has made him familiar to two quite different groups of people: his technical writings in theoretical linguistics have become the basis of linguistic scholarship in this country and abroad for the last 30 years. Simultaneously, his writings on a wide range of political and social issues have provoked heated and wide-ranging debate throughout the political spectrum. This class explores the relationship between these two sides of Chomsky's intellectual life and thought. Particular attention is focussed on his views of "human nature" and the necessary tension between freedom and creativity on the one hand, and rules and constraints on the other.
Required Reading	Chomsky, N. 1957. Syntactic Structures. ---------- 1965. "Linguistic theory." In R.J. Mead, Jr., ed., Northeast Conference on the Teaching of Foreign Languages. pp. 43-49. ---------- 1969. Remarks to the Commission MIT Education. November 11. ---------- 1971. Problems of Knowledge and Freedom. ---------- 1973a. For Reasons of State. ---------- 1973b. "One man's view." Business Today; May: 13-15. ---------- 1975. Reflections on Language. ---------- 1976. "Noam Chomsky talks to Peter Jay. How to be an anarchist." The New Review; 3(29): 25-32. ---------- 1977. Language and Responsibility. ---------- 1978. "Interview with Noam Chomsky." Linguistic Analysis; 4: 301-19. ---------- 1983. The Generative Enterprise. Lieber, J. 1976. Noam Chomsky: A Philosophical Overview. Saporta, S. "Noam Chomsky: His Epistemology and His Ethics." (unpublished). Searle, J. 1974. "Chomsky's Revolution in Linguistics." In G. Harman, ed., On Noam Chomsky: Critical Essays. pp. 3-33. Stent, G. 1975. "Limits to the scientific understanding of man." Science; 187: 1052-57. Weimer, W. 1973. "Psycholinguistics and Plato's paradoxes of the Meno." American Psychologist; January: 15-33.
Syllabus	Linguistics Philosophy/Psychology/Biology: On Interpreting the World Politics: On Changing the World Education: Action Informed by Reason
Requirements	Weekly essay.
Source	University of Washington Instructor: Sol Saporta

Title **Linguistic Approaches to Point of View in Fiction**

Level Fulfills Distribution Requirement Area 4; for English majors, fulfills Requirement A.

Description This course is intended to acquaint students with the principles and methods of contemporary linguistics that are helpful in approaching "point of view" in literary text. It is meant to increase awareness of style and skills in stylistic analysis, with in-depth focus on 1) the communicative strategies available to writers and 2) the responses that the strategies used in a particular text elicit in readers. For the most part, the course will take a microscopic look at excerpts from a variety of short stories, but will also include discussion of a few complete texts. This analysis is meant to open up a fuller understanding of the texts, not to grind them to shreds. Students will have the opportunity to synthesize the various aspects of point of view that have been discussed in term papers.

Required Readings Texts: Stone, Wilfred, Nancy Huddleston Packer, and Robert Hoopes. 1983. The Short Story: An Introduction. 2nd ed. New York, NY: McGraw-Hill.

Traugott, Elizabeth Closs and Mary Louise Pratt. 1980. Linguistics for Students of Literature. New York, NY: Harcourt Brace Jovanovich.

Suggested Readings Carter, Ronald. 1982. An Introductory Reader in Stylistics. London: Allen and Unwin.

Leech, Geoffrey and Michael N. Short. 1982. Style in Fiction: a Linguistic Introduction to English Fictional Prose. New York, NY: Longman.

Syllabus
Lexicon
Syntax
Transitivity and Role Structures
Speech Acts
Pragmatic Structures
Spatial and Social Deixis
Temporal Deixis
Other Temporal Relations
Showing vs Telling; Story vs Discourse
Presentation of Speech
Free Indirect Style
Standard Language, Dialect
Second Languages
Point of View and Problems of Translation

Requirements Three exercises, two short papers, one term paper.

Source Stanford University
Instructor: Elizabeth Closs Traugott

Title **Linguistics and Literature**

Level Undergraduate/graduate

Description This course has two objectives: (a) to discuss the system underlying the language we use and hear around us every day, and (b) to suggest ways to approach the language of a literary text.

The course uses as a starting point a sketch of fundamental linguistic concepts developed by Noam Chomsky and his followers, with special attention to the organization of language-phonologic, syntactic, and semantic. From there it moves on to some more recent ideas about the function of language in communication, particularly the establishment of participant roles and of shared information. In the final weeks it will be concerned with regional, social, and ethnic varieties of English. Close attention to language is an essential prerequisite to literary criticism and even appreciation, and the course will focus on developing skills both in reading and talking about the language of literary texts. Such skills are obviously "precritical" and are to be regarded as a necessary beginning, but not as an end in themselves. Students should be able to use these skills all their lives, not just in English or linguistics classes.

By the end of the quarter, students should know:
(a) many of the basic issues to which the discipline of linguistics is addressed;
(b) much of the basic vocabulary of linguistics;
(c) how to transcribe speech phonetically, and how to analyze the syntax, semantics, or "pragmatics" of a sentence;
(d) how to do rigorous stylistic analysis of short literary texts, based on linguistic principles;
(e) some of the basic issues in literary theory, e.g., the ideas behind "literary competence" speech act approaches to fiction, and point of view.

Required Readings Text: Traugott, Elizabeth Closs and Mary Louise Pratt. 1980. Linguistics for Students of Literature. New York, NY: Harcourt Brace Jovanovich.

Suggested Readings Freeman, Donald C., ed. 1981. Essays in Modern Stylistics. (Required for graduate students.)
Williamson, Juanita, and Virginia M. Burke, eds. 1971. A Various Language: Perspectives on American Dialects.

Syllabus
What Is Language
Goals of Linguistic Study
Linguistics and Literature
Speech vs Writing
Phonetics
Phonology
Morphemes
Syntax
Complex Sentence Structure
Relativization
Syntax and Literature
Semantics
Role Structure and Literary Analysis
Transitive vs Intransitive
Speech Acts

Discourse Strategies
Point of View in Literature
Standard Language
Regional Dialects
Social Dialects
Black English Vernacular
English in Contact
Use of Dialect in Literature
Multilingual Literature

Requirements Undergraduates: phonetic transcription of a poem, 1-page discussion, two short papers, midterm, final.

Graduate students: All of above plus a short discussion and critique of a paper in Freeman.

Source Stanford University
Instructor: Elizabeth Closs Traugott

750

Title	**Mysteries of Mind, Brain and Humanity**
Level	Prerequisite: Admission to University Honors Program
Description	Interdisciplinary perspectives (from linguistics, psychology, literature, philosophy, biology, and biochemistry) on the mind and the brain. The course focuses on the acquisition and storage of knowledge, the evolution of the brain, consciousness and emotion, intelligence, and brain/mind abnormalities.
Required Readings	Bloom, Floyd E. et al. Brain, Mind, and Behavior. Churchland, Paul. Matter and Consciousness. Searle, John. Minds, Brains and Science.
Suggested Readings	Faulkner, William. The Sound and the Fury. Gould, Stephen Jay. The Mismeasure of Man. Jaynes, Julian. The Origin of Consciousness in the Breakdown of the Bicameral Mind. Johnson, E. Marshall et al. Human Anatomy. Kesey, Ken. One Flew Over the Cuckoo's Nest. Lieberman, Philip. The Biology and Evolution of Language. Plato. Protagoras and Meno. Sacks, Oliver. The Man Who Mistook His Wife for a Hat. St. Exupery, Antonine de. Wind, Sand and Stars. Sagan, Carl. Dragons of Eden. Shakespeare, William. Othello. Woolf, Virginia. Mrs. Dalloway.
Syllabus	Introduction The Concept of Mind The Gross and Microscopic Anatomy of the Nervous System Measurement of Mind and Brain The Mind, Ultimately the Brain Mind, Knowledge, and Morality Rationalism and Empiricism for the 1980's Learning and Memory The Inheritance of Knowledge Chance and Necessity in Language Acquisition Visual, Auditory, and Speech Centers of the Nervous System Memory and Desire Motor Behavior and Memory Sensation, Perception, and Sensori-Motor Integration Molecular Mechanisms of Memory Storage in the Brain Leach Errors and Spinguistic Evidence Theories of Perception Ignorance Creation Myths The Evolution of the Human Brain and Mind The Development of the Human Nervous System from Conception to Maturity Complex Behaviors in Fetuses and Infants Language Origins The Evolution of Mathematics States of Consciousness Observations on Consciousness and Quantum Mechanics Modelling Intelligence Consciousness and Machines Theories of Emotion Do Wishes Control Neurons?

Happiness, Knowledge and the Unity of Virtue
Pathways of Desire
Post-Traumatic Shock
Emotional Challenges
Men's Styles/Women's Styles
The Nature and Measurement of Intelligence
Observable Brain Differences
Can Girls Do Math?
The Modularity of Mind
The Politics of Difference
Language Deficits
Deficits and Excesses
Russell's Paradox
Schizophrenia
Chronics, Acutes, and Bull Goose Loonies
Sports and Other Forms of Mob Violence
Shamanism
Natural and Unnatural Highs
Theater of the Night
Immortality
Skill in Chess
Summaries and Predictions
Review and Predictions
Consciousness

Requirements Attendance required at three lab sessions, one paper, two lab assignments, a continuous journal, an independent project, two exams.

Other Nine (9) credit hours.

Source University of Alabama - Birmingham
Instructors: Ed Battistella, Linguistics
Ed Cook, Psychology
Ada Long, English
Lila Luce, Philosophy
Dail Mullins, Science Education
Virginia Volker, Biology

752

Offering A Faculty Enrichment Seminar In Linguistics

Nancy C. Dorian, Bryn Mawr College

The kind of seminar which might be given in Linguistics under the heading of "Faculty Enrichment" would differ very much according to the particular faculty members intended as participants. My college (Bryn Mawr College in Bryn Mawr, Pennsylvania) wanted to involve foreign language teachers, and that fact determined the approach I took. It would have been perfectly possible (and within my competence) to undertake a seminar in Linguistics for colleagues in the social sciences, but every aspect of the seminar would then have been different. (Likewise in the case of a seminar in Linguistics for literary scholars, although that would not have been within my competence.) The seminar I will be referring to is only a single model, then, and not by any means a blueprint for Faculty Enrichment Seminars in Linguistics generally.

Whatever the focus of such a seminar, it is likely that faculty will be most willing to attend to someone whom they see as speaking out of firsthand experience in the very particular vineyard which they labor themselves. If I had been working with social science colleagues, I would have drawn very heavily on my long fieldwork experience and my research in sociolinguistics. Since I was working with foreign language teachers, I drew very heavily on two decades of classroom foreign-language teaching and on many and various stints as a foreign-language learner.

Other considerations also influenced choices I made. The College had recognized that a seminar, if it was going to get serious effort and whole-hearted participation from overworked professors, would have to come forward with an offer of relief on some other score. Thanks to a grant from a trust* one full-time tenure-track member each from the departments of French, German, Spanish, Italian, Latin, and Greek received released time for one course in order to participate; in addition, one member of the Russian Department participated in preparation for a second seminar, to be given by him the following semester, on more strictly pedagogical aspects of Linguistics (in which I will then be a consulting visitor, as he was in my seminar). The importance the College placed on the Seminar was enhanced by their guarantee of released time to core participants; the selection of midcareer, mostly tenured, but relatively young faculty as core participants also made inclusion seem a privilege. A good many other foreign language teachers were then approved as guests, provided they brought strong skills, interesting backgrounds, and convincing interest to the enterprize; both very senior faculty and very junior faculty (including two part-time instructors) were among the guests. The total number of participants was 16 (myself included), and the languages represented among this larger group then included the following less commonly taught languages: Chinese (2 participants), Swedish (2 participants), Turkish (2 participants), Modern Greek (2 participants), Hebrew (2 participants), and Scottish Gaelic (1 participant). At least six participants had studied both Latin and Ancient Greek; the great majority had Latin and French in common as well as English. This richness in language backgrounds was a great advantage and made a fairly high level of adventurousness possible.

Neither the institution nor I considered my assignment to be primarily practical in focus. The real goal was to strike intellectual sparks: to prompt re-thinking of familiar material, to offer new material that would open horizons and stretch understanding and imagination. At the very end of the seminar I hoped to be able to demonstrate that many of the matters we had discussed could be given practical application in one way or another, but participants were told in advance that this seminar would not be geared toward changes in their teaching techniques or toward immediate improvements in their general pedagogical skills.

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*The Pew Charitable Trust

In fact I believe that a very narrow practical focus would produce only very short-term benefit. With a core group of relatively young participants, bringing fresh perspectives and opening new vistas seems more likely to stimulate interests that could lead the participants to go on thinking freshly on their own after the seminar's end.

I chose a three-pronged approach. On the assumption that most participants would have had some training in Latin, but that the training was likely to have come too early in schooling to be well understood, I proposed that we look at Latin afresh together, trying to understand how it worked as a grammatical system. Along with this went a close look at how the more traditional view of Latin grammar has come to affect our expectations about our own language and other languages as well.

In order to throw the better known languages of Western Europe into sharp relief, a second approach was to introduce as much information from and about non-Indo-European languages as possible. Here the fact that we had participants familiar with Chinese, Hebrew, and Turkish was especially useful. But I also drew on other languages (for example, on an Australian aboriginal language and a South American Indian language, via hand-outs) for material.

Languages less familiar to speakers of Western European languages of Indo-European descent helped us in two special ways. Often they made grammatical distinctions unknown or uncommon in the more familiar languages. An example of this type would be the elaborate system of so-called "evidentials" in a good many languages (e.g., Kashaya of the Central Pomo group of California; Akha of Lolo-Burmese; Tuyuca of Brazil and Columbia). The evidentials in these languages are usually as inescapable as verbal tense in Western European languages; they must appear in a sentence to mark how the speaker came by his knowledge (that is, the "evidence" he relies on). Evidential markers typically distinguish among knowledge obtained be personal witness, knowledge by evidence of other senses, knowledge by hearsay report, knowledge by deductive reasoning, and the like. It would not simply be irresponsible to say something without one of these markers, it would be impossible, in some languages. Just as a verb lacking some indication of time is unsayable in a complete English sentence, a completely formed sentence in one of these languages might be impossible without evidential marking. Or at most a sentence without overt evidential marking might be allowed, but the very absence of the marker would distinguish a certain source of knowledge from all the others.

Apart from providing examples of categories quite unusual from a Western European standpoint, the less familiar languages gave us parallels of an unexpected sort for categories very frequent in most of the languages we know. Speakers of Indo-European languages are certainly prepared to meet nouns with obligatory gender assignment, for example. But no Indo-European language has more than three genders, and the very term "gender" also seems to turn our thinking toward a three-way division: male, female, and neither of those (= neuter). As a result we tend to be incredulous if we hear of a "gender system" with seven or eight different genders, as can happen in the Bantu languages of sub-Saharan Africa.

In our own group we spent a good deal of time exploring gender as a grammatical concept, and it was one of our more successful ventures. Because we had the usual expectations, rooted in a grammatical terminology drawn from the Indo-European Classical languages, our members looked for "gender" to appear in suffixes, in concord, in pronoun reference, and so forth. Our one native speaker of Chinese was not trained to think about the possibility of gender, either, in a language like

Chinese, without true suffixation, without any sex-based pronoun use, and without the elaborate noun-phrase agreement of most Indo-European languages (e.g. Latin illa parva puella,'that small girl,' with all three words marked as feminine subject forms). I asked the native Chinese speaker to report on "measure words" (also known as "classifiers"), however, and as other seminar members asked questions about what they heard, a certain shock of recognition occured on both sides, Some of the guestions and answers went more or less like this:

Q: Does every noun have a measure word?
A: Yes. Every noun.
Q: How do you know which measure word will go with a particular noun?
A: You can't predict. You have to learn the measure word for each noun. Some nouns that take the same measure word have something in common, but others are completely different.
Q: How early do you start to teach the measure words?
A: You teach them right away. As soon as they learn the noun, they also learn the measure word. They can't use the noun unless they know the measure word, so they have to memorize them together.
Q: How many measure words are there in all?
A: I don't know. Some of them are very rare, The rare ones are used in very learned language. Probably two dozen, maybe more.

By this time it was clear to everyone present that the "measure-word" system of Chinese worked a lot like gender. There might be two dozen classes,but there was still obligatory (and mostly unpredictable) assignment to those classes. The nouns often couldn't be set into sentences grammatically and sensibly without the correct measure word. Teachers of Chinese had to insist on on immediate memorization of measure-word class assignment of Chinese nouns exactly the way teachers of French, German and Spanish had to insist on immediate memorization of gender-class assignment of nouns in those languages. Since the Indo-European focused teachers had never thought about the properties of gender in any abstract, general way, and the native chinese speaker had never needed to deal with the traditional "gender" notion within the Indo-European framework, the parallels were a revelation to both parties.

Gender was a prime topic in another way as well. Of all the distintions commonly forced upon users of Western European languages, gender seems like the least useful. Native speakers of English tend to feel they've been spared a lot of unnecessary trouble by the fact that English stopped marking gender early in its history. So after we had considerd gender, the way it is marked in various languages, and its analogs in non-Indo-European languages, we took up the question of what gender is good for. That discussion took us into the realm of agreement and the utility of multiple markings of grammatical function: the power of redundancy. If a category is marked several times over, any obstacles in the communication channel will be less destructive to the communication. If the speaker articulates poorly, if the person addressed is hard of hearing, if there is constant or intermittent noise in the surroundings, the message still stands a good chance of getting through when there are several repetitions of the signals of function. In Indo-European languages, gender intertwines deeply with markers of case and number; the basic gender assignment of a noun determines which case and number signal(s) will appear, and having two or three genders multiplies the markings which are distinctive -- that is, the markings which can only represent one case or number, especially in combination with markings on other words in the noun phrase which must carry signals of that case and number as well. In addition, cross reference, in a language which has grammatical gender, can be used very effectively to make the intended antecedent clear. In a complex structure like the one in German below, there is no need to repeat any noun, because the pattern of the article and the numerical adjective tells the story perfectly clearly:

Als junger Mann hatte er Ruf und Geld, am Ende seines Lebens nur noch das eine.
'As (a) young man he had reputation (Ruf, masc.) and money (Geld, neut.), at the end of his life he had only the one' (marked as neuter; therefore it must be the money which remained, while the reputation proved impermanent).

Gender markings are not only potentially useful to provide redundancy and to make structural linkages unmistakable; they can also be used to artistic effect. The German example just given suggests in a small way how this might be true. When the language user is offered a choice of ways to identify the antecedent, options as to what can be positioned within the special focus of attention are created, too. The "architecture" of the construction can be varied in order to achieve a particular effect. At the extreme of gender marking and of the concord possibilities it opens up, a kind of poetry of concord may even come into being. The Bantu language specialist Desmond Cole speaks feelingly of the "fascinating system of concords, which puts music and poetry into every Bantu sentence;" he is referring to the gender-class prefixes which are required for each noun, and are attached not only to the noun but also to nearly every other word which appears with it in the sentence, producing a rich alliterative effect.

And so it seems that gender, that "excess baggage" of grammar, has more to recommend it than one might first suppose.

One more focus which seems almost to beg for attention in a seminar of the type our group undertook is change in language. There are a number of good reasons why this should be so. We were looking quite a bit at Latin, a non-contemporary language preserved in a frozen form; most of us knew modern languages derived from some version of Latin, and all of us knew at least one modern language related to it (namely English). We consequently had a diachronic ("across time") perspective as a given, more or less. Furthermore, nearly all of us knew something about earlier stages of the language we were professionally most concerned with, and some had had quite a lot of historical training of that sort.

Many phenomena of language history are just plain peculiar and fascinating in themselves, in any case: folk etymologies which make an understandable-seeming pickax(e) out of a Middle English word picois, derived from Old French and lacking all connection with axes; back formations which provide a singular pea to go with what looks like a plural peas(e); spelling pronunciations that put the -head back in forehead and spoil the nursery rhyme about the little girl of extreme behaviors and the lock of hair (horrid, forehead).

Historical material can be enjoued for its own sake, and this particular group proved to take marked interest in it. That interest then opened other avenues by which to approach language phenomena. One was to explore ways in which particular developments come about, deepening our general appreciation for the complexity and yet the inevitability of various types of change. In this connection we looked not only back, at what had happened between Old English and Modern English, or between Classicla Latin and French, say, but also around, at analogous phenomena in other spheres of language use.

Once we recognized, for example, the tendency for word boundaries to become obscured or assigned in a different way (as in the reassignment of the indefinite article's final -n, to give a nickname and a newt from earlier an ekename and an ewte, in the history of English), we could look as well at the language of young children coming to grips with word divisions: "Uncle Leonard has myopia." -- "Your opia."

And some of the curiosities of current-day colloquial speech also come to seem more understandable: It's a whole nother ballgame; I'll take what's ever left. Once the subtle processes of change are recognized for what they are, it can become easier to recognize the areas where things are in flux, unresolved, or obscure in one's own language.

Those who can learn to look at language as a system with pressures toward simplification and regularization on the one hand, and pressures toward differentiation and elaboration on the other -- both sorts of pressures operating at all times, but with varying success -- can also learn to understand better (and even to take an intellectual interest in) their student's "mistakes", whether in English or in the so-called "target language."

Foreign-language teachers often share with English teachers a sinking feeling that the English language is going rapidly to wrack and ruin, and that no one is struggling to shore up the foundations of English grammar. For the bedrock pessimists it seems to much to hope, then, that the English mother-tongue student who has no proper grasp of his or her own language should manage to acquire control of some other language's grammar. It can give both an intellectual challenge and a reassuring sense of motivated, non-random language behavior to learn to puzzle out the currents of contemporary change processes in English (especially colloquial English). It's not a wild disregard for order or proprieties which leads our contemporaries to use the redundant-seeming expression *equally as*. They are simply extending, in a very orderly fashion, a well established pattern of comparison which already includes expressions like *just as*, *(not) nearly as*, *twice as*, *almost as*, *at least as*, and so forth. No one has to like or approve of the extension; but recognizing its source can at least ward off the apocalyptic view of a random, patternless disintegration settling upon the prostrate English language.

Discovering that a shift is underway toward marking the subjunctive in English past contrary-to-fact sentences by means of *would*, in preference to any other device (i.e., *if I would have known* instead of *if I had known* or *had I known*), can lead to some understanding of English-speaking students' tendency also to overuse the German equivalent *wurde*; a teacher who knows that his or her students are more likely to be saying *if I would have known* than people in his or her young days will plan a little more consciously to prevent overuse of *wurde* when the time comes to introduce contrary-to-fact conditions in German.

A mind open to looking at language on the way to somewhere, but with the destination and route not fully determined, can handle the murky corners better. Our group looked, for example, at the unique position occupied in English by *a couple (of)* -- neither quite singular nor quite plural. We usually say *I've been there a couple of times*, with a plural noun; but *That couple of men are hanging around again* is about as possible as *Those couple of men are hanging around again*: plural verb, but either singular *or* plural demonstrative. Most quantity elements either precede *more* or follow *another* ... *of* (*several more men*; *another group of men*). At least in colloquial style, *a couple (of)* can do both: *a couple more men*, *another couple (of) men*.

The particular group which convened for the Faculty Enrichment Seminar in language and Linguistics at Bryn Mawr was a lively one, curious, interested, and eager to participate. From the third week on, members of the group prepared reports at a great rate, explaining phenomena in the languages they taught or knew for the benefit of the rest of the group. There was only one requirement: whoever was presenting material had to provide a hand-out for the others. This policy ensured that the presenter had thought through the issue carefully and could make the report coherent and efficient. After a report, the whole group was free to ask questions indefinitely, and it was in those question sessions that much of the best learning took place. As the members who didn't happen to know the language under discussion asked ever more penetrating questions of the presenter, the responses made the phenomena which had been presented clearer and the point at which those phenomena came into play also became more graspable.

Some of the reports were the obvious ones, given the membership of the seminar:

tone in Chinese extremes of suffixation in Turkish, internal vowel change in Hebrew, and so forth. But we also had reports on the discrepancy between the inflectional patterns *written* French suggests and the patterns the listener actually hears, and on the delight, in Classical Latin style, in the abandonment of collocation (the use of adjacency to emphasize the close grammatical connection between particular words) and in the construction of sentences which seem to place a modifier almost anywhere *other* than beside the element it modifies.

There are probably as many ideas about what might be featured in a "Faculty Enrichment Seminar" involving Linguistics as there are linguists. My personal expectation is that most of them would have a fair chance of success, provided only that a single condition is met: the linguist must be *not* an expert with some sort of superior fund of knowledge to impart, but rather a colleague who has shared many of the experiences, difficulties, and objectives of the other members of the group. Dispensing expertise is not really likely to be enriching. Pooling knowledge, building on shared experience, deepening insights, opening new perspectives on already familiar material -- these stand a chance of living up to the challenging term "enrichment." With or wothout any direct change in faculty teaching practices, the seminar will have worked if the material looked at goes on provoking observations, ruminations, reconsiderations, and also raises questions or puzzles in the members' minds after the sessions are concluded.

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PHONEMES AND FEATURES[*]

by

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1. Introduction

In a general introduction to linguistics certain topics are both indispensable and pedagogically difficult. I believe that the concepts of the PHONEME and the FEATURE are indispensable to the phonology section of such a course: the two constructs can be argued to be PSYCHOLOGICALLY REAL, indeed, to be fundamental units in the mental organization of phonological abilities; both constructs are ABSTRACT, not simply or directly identifiable with actual physical events; these constructs figure prominently in the statement of the REGULARITIES governing the phonological side of any particular language; moreover, these regularities are LANGUAGE-SPECIFIC; but they are phonetically NATURAL, explicable to a large extent in terms of the conflicting needs of clarity and ease. The topics of psychological reality, abstractness, regularity, language differences, and naturalness are all important ones in an introductory linguistics course, and all can be explored in a short treatment of phonemes and features.

Despite their centrality, the phoneme and feature concepts are notoriously difficult for students to grasp. Undoubtedly their abstract character has a lot to do with their difficulty; students in search of a usable and memorizable explanation will not derive any practical benefit from such definitions as the following, careful though they are:

> A phoneme is a sound of a given language that native speakers agree is just one segment, and which enables them to recognize differences of meaning between words.
>
> (Suzette Haden Elgin, *What Is Linguistics?* 2nd ed. (Prentice-Hall, 1979), p. 85)

> DISTINCTIVE FEATURES. A set of universal, putatively innate, phonetic and phonological properties by reference to which the speech sounds of the world's languages are described ...
>
> (Neil Smith and Deirdre Wilson, *Modern Linguistics* (Indiana Univ. Press, 1979), p. 275)

Instead, the student must be led to an appreciation of the concepts through a series of examples. My own strategy is to lean very heavily on material illustrating the psychological reality of phonemes and features, so as to work against the students' tendency to see these constructs as

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something invented by linguists for their own arcane purposes, rather than something relevant to ordinary human beings. In the two sections that follow, I discuss briefly some pedagogical problems specific to phonemes/features and then provide, for each, several exercises designed to illustrate psychological reality; sample answers to the exercises appear in an appendix. This material was developed for a class of beginning graduate students and advanced undergraduates, although some of it could be adapted to classroom use in a lower-division 'introduction to language' course rather than an upper-division 'introduction to linguistics'.

II. Phonemes

My focus here is on the classical phoneme and the principles governing the distribution of allophones.

A special problem in introducing the phoneme concept has to do with the sequencing of phonetics and phonology in an introductory course. If phonetics leads, the student must first learn to attend to aspects of sound that are normally outside of conscious reflection and then to disregard these aspects in phonemic transcription. As a result, phonemics might seem unreal. If the student first learns phonemic transcription for English, then goes on to learn phonetic transcription and terminology, the student may be encouraged to persist in English-based beliefs as to which sounds are alike and different. I have found neither sequence entirely satisfactory; the exercises below have been used with both orders of presentation.

Before these exercises are given out, the class has had a presentation of contrast/complementary distribution/free variation in which the following allophonic principles of American English (among others) were mentioned:

aspiration of voiceless stops at the beginning of a word or a stressed syllable;

devoicing of liquids after voiceless stops;

affrication and retroflexion of t d before r;

h realized as ç before y;

labialization of consonants before rounded vowels;

develarization of ɫ before front vowels;

nasalization of vowel nuclei before nasals;

variation between plain and glottalized voiceless stops syllable-finally, with ˀ as a variant of t' in this position;

variation between əR and R̩ when unstressed, for the resonants r l n m;

i e u o as unstressed (free) variants of iʸ eʸ uʷ oʷ, with ɪ as a (free) variant of i word-finally.

With this background, it is possible to have the class analyze cases of (a) phonemic hearing of other languages; (b) phonemic hearing of dialects with different systems; (c) 'foreign accents' in reproducing phrases in languages other than English; and (d) 'phonemic memory', manifested as a faulty memory for actual pronunciations. All of these point to the psychological reality of the phoneme, as do the following: (e) the phenomenon of categorial perception (which can be discussed in a later section of the course on psycholinguistics); (f) the phonemic rather than phonetic nature of alphabetic writing systems (which can be discussed in a later section on writing systems); (g) slips of the tongue; (h) pig latins; and (i) rhyming schemes. It is these last three cases I will illustrate here. The exercises can of course be adapted if a different set of allophonic processes has been introduced.

Exercise for (g).

According to the *American Heritage Dictionary* (1976 college edition), a SPOONERISM is 'an unintentional transposition of sounds in spoken language, as *Let me sew you to your sheet* for *Let me show you to your seat.* [After William A. Spooner (1844-1930), English clergyman, noted for such slips.]'. Consider the following spoonerism:

	INTENDED TARGET	ACTUAL UTTERANCE
A	pink stems	tink spems

And an example of a related type of speech error, involving misplacement:

B	find wit	fide wint

Suppose that the phonetic transcriptions for the intended targets are as follows:

A [pʰɪ̃ŋk stɛ̃mz]

B [fãỹnd wɪt]

Now answer the following three questions:

1. If it is SOUNDS that are transposed or misplaced, what would be the phonetic transcriptions for the errors *tink spems* and *fide wint*? (Remember that each symbol in a phonetic transcription represents a single sound.)

2. What are the correct phonetic transcriptions for *tink spems* and *fide wint*?

3. Given your answers in 1 and 2, how would you revise the American Heritage Dictionary definition of SPOONERISM? Why?

Exercise for (h).

According to Robbins Burling (*Man's Many Voices*, Holt, Rinehart and Winston, 1970, p. 135),

> At some time during childhood, most American children learn to use "pig latin". Instead of *he will give it to me*, a child will learn to say *iyhey ilway ivgay itey uwtey iymay*. This distorted form, of course, is accomplished by a simple phonological transformation. Children teach the pattern to one another by some such instruction as this: "take the first sound of each word and put it on the end and then add *a*." This rule is reasonably accurate though a linguist might want to refine it ...

Many people have learned a form of pig latin in which not only the first consonant of a word, but a whole word-initial consonant cluster, is moved to the end of the word, so that *stop* is transformed to *opstay*; however, we are going to consider a form of pig latin that follows exactly the rule Burling cities, so that *stop* is transformed to *topsay*. Examine the three following phrases with respect to this pig latin:

(A) stop play [stap pʰl̥eʸ]

(B) try Hugh [ṭˢ·r̥ay çɥuʷ]

(C) low cool [ɫoʷ kʷʰuʷɫ]

and answer the following questions:

1. If it is a consonant SOUND that moves to the end of the word and has [eʸ] attached to it, what would be the phonetic transcriptions of the transformed versions of (A)-(C) in this pig latin?

2. What are the correct phonetic transcriptions for the transformed versions of (A)-(C) in this pig latin?

3. In light of your answers to 1 and 2, how would you revise Burling's rough rule for this pig latin? Why?

Exercise for (i).

Consider ordinary RHYME in English. According to Karl Beckson and Arthur Ganz, *Literary Terms: A Dictionary* (Farrar, Straus and Giroux, 1975), p. 210:

762

> The most usual English rhyme is variously called "true", "full", "perfect", "complete", or RIME SUFFISANTE. In it, the final accented vowels of the rhyming words and all succeeding sounds are identical, while preceding sounds are different, as in *bake-rake*, *heaven-seven*.

The following rendition of the beginning of a familiar nursery rhyme counts as full rhyme:

(A) ǰǽk' sprǽt'

kʰúd íʸt nóʷ fǽʔ

So does the following rendition of the beginning of a poem/song from Edith Sitwell's *Facade*:

(B) déʸzi æn líli

léʸzi æn sílɪ

And so does the following rendition of the beginning of another *Facade* piece:

(C) kráyd ðə néʸvi bɫúʷ góʷst

əv mɪ́str̩ bəléʸkər

ði əlɛ́gro nígro kʰák'tʰèl šékr̩

However, if (A) ended in [fǽk'] it would not count as a full rhyme; nor would (B) if it ended in [síli]; nor would (C) if it ended in [šékl̩].

1. Why are (A)-(C) acceptable rhymes in English, and these not?
2. How would you revise Beckson and Ganz's definition of full rhyme? Why?

Some remarks on the exercises. A substantial number of students will give answers like the following to the final question in the exercises: respectively, 'an unintentional transposition of sounds in spoken language, with these sounds changed to fit their new places'; 'take the first sound of each word and put it on the end and add a and then apply the allophonic rules of English'; 'the final accented vowel of the rhyming words and all succeeding sounds are identical, except for phonetic features due to surrounding sounds'. A reference to the 'allophonic rules' of English is precise but not always correct, due to the directionality of these processes (e.g., there is a process devoicing l after p, but none voicing l̥ word-initially, but the latter process is what would be required for example (A) in the pig latin exercise). A reference to contextually determined changes in sounds is a great deal vaguer and fails to mention the language- and dialect-particular character of these changes. All three answers treat the contextual determination as fortuitously connected to the phenomena at hand, indeed as an effect that wouldn't have to happen at all. Referring to phonemes gives a BETTER answer in each case. (This is one place to introduce the lesson that some answers may be better than others, even if they're all factually adequate, a lesson that some students--who object to the importation of 'aesthetic' criteria into a 'scientific' enterprise--resist with passion.)

Titling the first of these exercises 'Sounds and Phonemes', or anything with the word PHONEME in it, increases the percentage of 'right' answers, but perhaps for the wrong reason.

Such exercises can be distributed over class discussions, homework, and examinations. I usually save one for a review homework assignment or an examination, where it can recall the student's mind to a type of reasoning previously used without asking for a mechanical replay of an earlier answer.

Finally, I stress the importance of the 'why' in the final questions of these exercises, if necessary assigning an actual point value to a brief defense of the answer given. (This is one place to introduce the lesson that a presentation of the evidence for some answer is usually more important than the answer itself, again a lesson that some students--who object that a linguistics course is not a course in thinking or writing--view with distaste.)

III. Features

Here the stickiest point is the connection between the descriptors of phonetics and the features of phonology. Most linguistics textbooks develop separate vocabularies of descriptors and features, despite the evident overlap between the two; some typographical distinction (initial capitalization, italics, small caps) then has to bear the burden of distinguishing, say, the feature 'Nasal' from the descriptor 'nasal'. One text--*Linguistics: An Introduction to Language and Communication*, by Adrian Akmajian, Richard A. Demers, and Robert M. Harnish (MIT Press, 1979)--a text with several admirable chapters, moves from phonetic descriptors to phonological features within the space of a few pages in a single chapter, thereby confusing all but the brightest students and alienating all but the most passive.

One motivation for this double vocabulary is probably that descriptors are believed to be phonetic, anatomic, physiological (or perhaps acoustic), while features are believed to be phonological, mental, abstract. I see no reason to characterize the distinction in these terms. Surely the descriptors are abstract also: there is nothing anatomically in common to the many physical gestures that result in stop consonants; the tongue-root advancement associated with phonetically 'wide' or 'tense' vowels results in some raising and fronting of the tongue body, but phonetically wide vowels are not thereby classified also as high and front; the acoustic activity during a voiceless stop consonant is indistinguishable from an equally long pause; all the suprasegmental descriptors are inherently relative; 'there is no agreed physical measurement corresponding to syllabicity. But there is no doubt that segments can be described phonetically as being syllabic (100 percent) or nonsyllabic (0 percent)', according to Peter Ladefoged's *Course in Phonetics* (Harcourt Brace Jovanovich, 1975), p. 267; and so on.

The question is then whether there should be two abstract categorizations or only one. As a PEDAGOGICAL question, the answer ought to be that we would accept more than one abstract categorization only for the strongest of (pedagogical) reasons. This is just the sort of situation in which introductory texts do well to oversimplify; there are things it is better to conceal for a while, lest the students sink into a quicksand of conceptual and terminological refinements. Even as a THEORETICAL question, it seems to me, the answer ought to be that we would accept more than one abstract categorization only for the strongest of (theoretical) reasons. For theoretical purposes, we need a vocabulary (applicable to all languages) for naming natural classes of segments and natural relationships among segments and for describing the phonetic distinctions between phonemes; descriptors that serve none of these functions have no place in linguistic phonetics, and if we are fortunate a single set of descriptors will suffice for all of these functions.

My approach to descriptors and features in an introductory class is therefore unified, with a single vocabulary for 'phonetic properties'. Two types of exercises help the students gain some facility with this vocabulary. The first type focusses on phonetic properties and NATURAL CLASSES/RELATIONSHIPS, the second on phonetic properties and PHONEMIC DISTINCTIONS.

In exercises of the first type, the student is provided with positive instances of some phenomenon (and usually with negative instances as well) and is asked to supply the appropriate generalization. The form of such exercises is introduced in my initial discussion of phonetic properties, as in the text below.

Consider the statement in (1) below. How can we replace the second part of the statement (the part after the dots) so as to make it GENERAL, not merely a list of words that do one thing as opposed to a list of words that do something else?

(1) The English indefinite article is *ən* rather than *ə*...

before the words *ermine*, *easy*, *old*, *Australian*, *honor*, *enormous*, *ivy*, *ounce*, *added*, *awesome*, *herb*, *approximate*, and *early* (but is *ə* before *useful*, *history*, *radio*, *performer*, *European*, *dish*, *washer*, *fertile*, and *night*).

The generalization has to do with the type of sound that begins the word following the indefinite article: the first list consists entirely of words beginning with 'vowel' sounds, the second consists entirely of words beginning with 'consonant' sounds. (You should be able to give a convincing argument from these examples that it is SOUNDS and not LETTERS that are relevant.)

A slight complication is introduced here by the fact that *ermine*, *herb*, and *early* are in the *ən* list, while *radio* is in the *ə* list. For most American English speakers, the sound at the beginning of *ermine* is articulated just like the sound at the beginning of *radio*; for these speakers, *ermine* does not PHYSICALLY begin with a vowel followed by *r*. Yet the *r* at the beginning of *ermine*, like the *r* in the middle of *bird* and the *r* at the end of *butter*, counts as making a syllable, while the *r* at the beginning of *radio* does not. *Stirring* has an *ermine*-type *r*, and two syllables, while *string* has a *radio*-type *r*, and only one syllable. Now normally it is the function of VOWELS to make syllables, so that *ermine*, *stirring*, *butter*, and *bird* all have the consonant *r* 'acting like' a vowel; many English speakers also have an *l* acting like a vowel in *kettle*, an *n* acting like a vowel in *kitten*, and an *m* acting like a vowel in *bottom*. What all this adds up to is that the phonetic classification VOWEL/CONSONANT is not quite what we want in describing what's going on in (1). Instead, we want a distinction between sounds that make syllables and those that do not--between SYLLABICS and NONSYLLABICS. The generalization that completes the first part of (1) correctly is

(1') ... before syllabics.

Further complete-the-generalization problems introduce such properties as LABIAL, CORONAL, and SIBILANT, while the STOP/CONTINUANT and OBSTRUENT/SONORANT distinctions are described and briefly justified without exemplification in a problem. (Properties like ALVEOLAR, LIQUID, FRICATIVE, APPROXIMANT, VOICELESS/VOICED, and NASAL, which distinguish English phonemes, have already been introduced.) At this point the students are given a series of exercises of the complete-the-generalization form, arranged roughly in order of complexity. Some examples follow.

766

(8) At the beginning of a word before l or r, the only fricatives permissible in English are ...

the ones in *shred*, *slop*, *flicker*, *frazzled*, *slide*, *frog*, *thread* (so that **zlop*, **vlicker*, and **vrog* are not possible words, nor is *thread* if pronounced with the initial consonant of *this* rather than the initial consonant of *think*).

(11) Some American English speakers have ɛᵊ rather than æ ...

in *rash*, *has*, *gather*, *bath*, *raft*, *gas*, *castle*, *jazz* (but have æ in *fat*, *gap*, *stack*, *batch*).

(13) Some American English speakers (largely in the Midwest and South) pronounce ɛ as ɪ ...

in *then*, *Kenney*, *pen*, *Bengals*, *gem*, *Mencken*, *Remington*, and *temperature* (while maintaining ɛ in *met*, *wedding*, *beggar*, *best*, *get*, *merry*, *kept*, and *mesh*).

(18) English speakers have slightly labialized variants of word-initial consonants ...

in *toot*, *pooch*, *boat*, *known*, *cook*, *good*, *so*, *tall*, *fought*, *Shawn*, *pull* (but not in *team*, *pet*, *bait*, *name*, *father*, *give*, *say*, *Cal*, *fat*, *sham*, *pill*, *cut*, *birth*).

(24) Especially before words beginning with consonants, many Americans sometimes do not pronounce word-final ...

consonants in *six*, *leads*, *past*, *gift*, *act*, *meant*, *mend*, *hold* (though they do pronounce the word-final consonants in *branch*, *Welsh*, *mask*, *filth*, and *lisp*).

(31) Most speakers of English do not pronounce ...

a word-final b in *limb* and *thumb* or a word-final g in *wing* and *rung* (though they do pronounce the word-final consonants in *limp*, *thump*, *wink*, *drunk*, *lend*, *bond*, *rant*, *branch*, *lab*, and *rag*).

(32) Some Southern Ohio and Indiana speakers replace ...

the vowel of *met* by the vowel of *mate* in *special*, *measure*, *pleasure*, *mesh*, *precious* (but not in *mess*, *fettle*, *retch*, *methyl*, *pestle*, *wed*) and the vowel of *mitt* by the vowel of *meet* in *commission*, *fish*, *partition*, *elision*, *derision* (but not in *miss*, *fiddle*, *midge*, *nifty*, *whistle*, *sit*).

A few comments on this sort of exercise. The phenomena illustrated include dialect variants (some of which can be referred to again in a later discussion of historical change), casual speech variants (some of which can be used in sociolinguistics and/or in historical change), ordinary allophonic variants, phonologically conditioned morphophonemic variants, and constraints on phoneme combinations. Consequently, no framing brackets of any sort appear in the exercises.

The material to be replaced has forms cited in ordinary English spelling. This is deliberate. These exercises give students additional practice in phonemic transcription, at which they are probably shaky.

It may be necessary to give some explicit advice about solving specially designed problems like these: (a) these problems are so designed that there IS a general solution (a right answer covers all the cases, and there are no 'exceptions'); (b) all the information needed to get a solution is available in the problem statement (so that if there is no way to tell what pitch level particular words are spoken on, say, then this factor cannot be relevant to the answer); (c) such problems are ordinarily designed to have strikingly simple answers (so that if your proposed answer has several clauses in it, or rivals the problem statement itself in length, there is probably a better answer); (d) if there is negative evidence given, it is important (the devisers of such problems don't throw in whole categories of facts just for fun); (e) if your current hypothesis begins to look unpromising, try another, remembering that sometimes you might want to go back to an earlier idea.

After students have had a reasonable amount of experience with exercises like those above, it is possible to expand the range of exercises to include types that must be presented in transcription: data in languages other than English (indeed, standard phonemics problems can usually be recast in the format of (1) above), data from the acquisition of English by young children, and data from historical change.

I turn now to exercises focussed on phonetic properties as phoneme discriminators. First, a paragraph of introductory text.

The properties that define natural classes--for instance, voicing, nasality, continuancy, and point of articulation for consonants and height, frontness, and rounding for vowels--often act as independent elements of linguistic structure, so that individual sounds or phonemes must be viewed as 'broken down' into an assemblage of these properties. The English phoneme /p/ would then be seen as an assemblage of the properties VOICELESS, LABIAL, and STOP, therefore as distinguished from /b/ and /m/ as being voiceless rather than voiced, from /t/ and /k/ by being labial rather than alveolar or velar, from /f/ by being a stop rather than a continuant, and from other English phonemes by differences in two or more of these properties.

Exercise A.

Below is a list of slips of the tongue (from the collection in Victoria Fromkin's *Speech Errors as Linguistic Evidence* (Mouton, 1973)). Using appropriate phonetic terminology, describe what has happened in each of these errors. Do not merely say, "The speaker said m instead of b and said d instead of n," and the like, but look for some REASON why these particular errors should have been made. Hint: there is a sense in which all these errors are of the same type. Further hint: these errors are similar, in a way, to the common type of error known as the SPOONERISM (*my queer dean* FOR *my dear queen*; *you have hissed my mystery lectures* FOR *you have missed my history lectures*; *stretch and piss* FOR *stress and pitch*).

	INTENDED TARGET	ACTUAL UTTERANCE
a.	Cedars of Lebanon	Cedars of Lemadon
b.	Terry and Julia	Derry and Chulia /čulyə/
c.	big and fat	pig and vat
d.	clear blue sky	glear plue sky
e.	pedestrian	tebestrian
f.	scatterbrain	spattergrain

Exercise B.

According to Thrall, Hibbard, and Holman, *A Handbook to Literature* (Odyssey Press, revised ed., 1970), a *pun* is

> A play on words based on the similarity of sound between two words with different meanings. An example is Thomas Hood's: "They went and told the sexton and the sexton tolled the bell."

Their example is an instance of what I will call a PERFECT PUN, a play on words based on the phonological identity (or HOMOPHONY) of two words with different meanings. Below are some examples of perfect puns from John S. Crosbie's *Dictionary of Puns* (Harmony Books, 1977):

(1) bound

The zoo's kangaroo lacks zip: He is frequently discovered out of bounds.

(2) clap

VD is nothing to clap about.

(3) prone

We are all prone to die.

(4) worn

"Is anything worn under your kilt?"

"No, it's all in working order."

Very often, however, puns are less than perfect. Sometimes the difference between a syllabic and a nonsyllabic consonant is disregarded, as in these examples from Crosbie:

(5) mower

If you can't afford a power lawnmower, then mower power to you.

(6) wire

As the tightrope walker asked himself, "Wire we here?"

And sometimes the difference has to do with where words are divided:

(7) stripper

He was afraid to go out with the burlesque queen because he didn't know how to stripper.

(8) tall

It is better to have loved a short girl than never to have loved a tall.

And sometimes the difference has to do with whether there is a consonant or nothing at all.

(9) cling

Wrestling is the sport of clings.

(10) sequel

A wolf is a man who treats all women as sequels.

And sometimes--especially when the original expression is a well-known expression--the difference is very great:

(11) bovine

There once was a tolerant cow who stood for absolutely anything her favorite bull tried to get away with. She mooed, "Too err is human, to forgive, bovine."

(12) Persian

One man's Mede is another man's Persian.

Usually, however, in imperfect puns the difference is quite small, as in:

(13) clothe

Sign by gate to nudist colony: "Come in. We Are Never Clothed."

Consider the examples below (also from Crosbie): for each, identify the punning word in the example (*clothed* in (13)) and the word it puns on (*closed* in (13)); then identify the distinct phonemes that are matched in the pun (here, ð and z), and say what phonetic properties distinguish these phonemes (here, a difference in point of articulation, interdental versus alveolar).

(14) crab

Once there was a girl
Who kept fishing for a pearl,
But her chances were drab for it--
Until she made a crab for it.

(15) fever

Oliver Wendell Holmes, Sr., was a physician as well as an author and lecturer. He is said to have remarked of his medical career that he was grateful for small fevers.

(16) money

Sign outside an amusement park: "Children under 14 must be accompanied by money and daddy."

(17) radish

Health food can give you a radish complexion.

(18) choker

Mrs. reported to Mr.: "It says here that a man on the next block throttled his mother-in-law yesterday." "Hmmm," mused Mr., "sounds to me like he was a practical choker."

(19) bleach

When the blonde he married faded into brunette, he sued for bleach of promise.

(20) curl

Labia majora: the curly gates.

(21) sicken

"Aha!" cried Sherlock Holmes, "the plot sickens!"

(22) bottle

When it came to drinking, comedian W. C. Fields was a veteran who suffered from bottle fatigue.

(23) sylph

Why is it that many a woman with a sylphlike figure insists on keeping it to her sylph?

(24) clash

The late poet J. Ogden Nash
Always made of his English a hash.
When asked where it led
He flippantly said,
"It gives it a great touch of clash."

(25) sty

For many a farmer the price of pork has created a gold mine in the sty.

Sometimes imperfect puns involve differences in two or even three places, as in the following examples. Analyze these as you did (14)-(25), treating each corresponding pair of distinct phonemes separately.

(26) rabbit

Fast, speedy (as in Rabbit Transit).

(27) crass

... It is a platitude
That only a halter
Can alter
The middlecrass assitude.

(28) breeze

In Chicago, every prospect breezes.

(29) morsel

What foods these morsels be!

(30) mutton

Lamb stew is much ado about mutton.

Exercise C.

Most familiar verse in English uses FULL RHYME: the peak of the last accented syllable of a line, plus everything that follows that peak, is identical to the peak of the last accented syllable of a matching line, plus everything that follows it--

(1) Lizzie Borden took an axe
And gave her mother forty whacks.
(American verse of unknown authorship)

(2) I'm just a poor wayfaring stranger,
A-trav'ling through this world of woe;
But there's no sickness, toil nor danger
In that bright world to which I go.
('Wayfaring Stranger', #97 in Alan Lomax, *Folk Song U.S.A.*, New American Library, 1975)

But some verse--especially traditional English ballads, nursery rhymes, blues lyrics, and the lyrics of rock music--frequently uses HALF RHYME, in which the matched parts are not entirely identical. In many such cases, a consonant counts as rhyming with a cluster including that consonant--

(3) [n-nd]

Well lookin' for a woman
an' a well oh man
is just lookin' for a needle
that is lost in the sand
(Dylan, 'Just Allow Me One More Chance')

(4) [d-nd]

She left one too many a boy behind
He committed suicide
(Dylan, 'Gypsy Lou')

or a word ending in a vowel counts as rhyming with one ending in that vowel plus some consonant--

(5) [o-od]

I stood a wondering which way to go,
I lit a cigarette on a parking meter
And walked on down the road.
(Dylan, 'Talkin' World War III Blues')

In other cases, distinct consonants count as rhyming, or distinct vowels count as rhyming. In each of the examples below you are to pick out the distinct phonemes that are counted as rhyming in the italicized word (remember that material BEFORE the peak of the last accented syllable will of course be different, as in the full rhymes *axe-whacks* and *stranger-danger* and the half rhymes *man-sand*, *behind-suicide*, and *go-road*), and you are to say what phonetic properties distinguish those matched but different phonemes.

(6) The things that sit and wait for you
To stumble in the dark
Will take the cobwebs from your eyes
And plant them in your heart.
(Byrd, 'The Elephant at the Door')

(7) Going where the orange sun has never died,
And your swirling, marble eyes shine laughing,
Burning blue the light.
(Lamm, 'Fancy Colours')

(8) Farewell to Greer County where blizzards arise,
Where the sun never sinks and the flea never dies,
And the wind never ceases but always remains
Till it starves us all out on our government claims.
('Starving to Death on a Government Claim', #70 in Lomax)

(9) [This is a full rhyme in some dialects.]

Some of us were willing, while others they were not.
For to work on jams on Sunday they did not think they'd ought.
('The Jam on Gerry's Rocks', #50 in Lomax)

(10) Tying faith between our teeth
Sleeping in that old abandoned beach house
Getting wasted in the heat
(Springsteen, 'Backstreets')

(11) Well the technical manual's busy
She's not going to fix it up too easy.
(Mitchell, 'Electricity')

(12) Old Reilly stole a stallion
But they caught him and brought him back
And they laid him down on the jail house ground
With an iron chain around his neck.
(Dylan, 'Seven Curses')

(13) Git out the way, ol' Dan Tucker,
You too late to git yo' supper.
('Old Dan Tucker', #27 in Lomax)

(14) Oh, yes, I am wise
but it's wisdom born of pain,
Yes, I paid the price
but look how much I gained.
(Reddy, 'I am Woman')

(15) I'll remember Frank Lloyd Wright.
All of the nights we'd harmonize till dawn.
I never laughed so long.
(Simon, 'So Long, Frank Lloyd Wright')

(16) My experience was limited and underfed,
You were talking while I hid
To the one who was the father of your kid.
(Dylan, 'Love is Just a Four Letter Word')

(17) Like dust in the wind you're gone forever
You're wind-blown leaves you're a change in the weather
(Taylor, 'Something's Wrong')

(18) Love my wife, love my baby,
Love my biscuits sopped in gravy
('Blackeyed Susie', #29 in Lomax)

All the types of exercises I have illustrated are consistent with a number of different ways of treating phonemes and features. They are neutral with respect to the question of whether 'phonemic representation' is to be treated as essentially identical to 'morphophonemic underlying form' in an introductory linguistics course (not my ordinary practice) and with respect to the question of whether distinctive features are binary or not (the system being developed in the material above LOOKS nonbinary but can be fashioned into a binary system with little trouble). They can be used with various formalisms, or in a setting where students are instructed to give answers in ordinary but precise English, using the technical terms of linguistics where appropriate (my own preference, especially since this approach allows me to finesse the issues of redundant and unspecified features, two technical matters that generate a surprising amount of anxiety in students who want to get everything right). On the minus side, they present special difficulties to the non-native speaker of English, and must be revised depending upon the dialect make-up of the class. But then it is hard to think of a way of introducing phonology that is free of both of these drawbacks.

Appendix: Sample Answers

II. Phonemes

Exercise for (g):

1. [tɪ̃ŋk spʰɛ̃mz]
   [f̃ãỹd wɪnt]

2. [tʰɪ̃ŋk spɛ̃mz]
   [fayd wɪ̃nt]

3. An unintentional transposition of phonemes in spoken language. If we say that it is SOUNDS that are transposed, then we predict incorrect sequences of sounds in actual pronunciations; but if we say that it is PHONEMES that are transposed, then the correct allophones of these phonemes are automatically predicted.

Exercise for (h):

1. [tapseʸ l̠̥eʸpʰeʸ]
   [r̠̥ayṭˢ̣eʸ ɥuʷçeʸ]
   [oʷɫ̠eʸ uʷɫ̠kʷʰeʸ]

2. [t^{h}apse^y le^{y}pe^y]

[rayte^y yu^{w}he^y]

[o^{w}le^y u^{w}ɨke^y]

3. Take the first phoneme of each word and put it on the end and then add /e/. If we say that the SOUNDS are involved, then we predict incorrect sounds both at the beginnings of the pig latin words and before their final [e^y]; but if we say that PHONEMES are involved, then the correct allophones are automatically predicted in both places.

Exercise for (i):

1. In (A)-(C) the matched sounds are allophones of the same phoneme or phoneme combination: /t/, /i/, and /ər/, respectively. But [k'] and [t'] are allophones of different phonemes, /k/ and /t/; and stressed [ɪ́] and [í] are allophones of different phonemes, /ɪ/ and /i/; and [r̩] and [l̩] are allophones of different phonemes, /r/ and /l/.

2. All succeeding phonemes are identical. If we required that succeeding SOUNDS be identical, then different sounds in free variation with one another wouldn't count as rhyming, any more than different sounds that are allophones of different phonemes do; they are all different sounds. But this is incorrect. If we require that succeeding PHONEMES be identical, then we predict (correctly) that different sounds in free variation count as the 'same sound' for the purposes of rhyme.

III. Features

(8) ... voiceless.

(11) ... before fricatives.

(13) ... before nasal consonants.

(18) ... before rounded vowels.

(24) ... alveolar consonants.

(31) ... a word-final peripheral [or noncoronal] voiced stop after a nasal.

(32) ... nonlow front lax vowels by their tense counterparts before posterior [or nonanterior, or more specifically, alveopalatal] fricatives.

Exercise A: In each case a single phonetic property has been transposed between one phoneme and another: in example a, nasality appears with the earlier bilabial consonant in *Lebanon* instead of the later alveolar one; in examples b and d, voicing appears with a word-initial consonant in an earlier word instead of a later one, and in example c, with a word-initial consonant on a later word instead of an earlier one; and in examples e and f, the points of articulation for two consonants in a word have been exchanged. In every case all other phonetic properties of the consonants affected remain unchanged.

Exercise B:

(14) *crab* punning on *grab*; k and g; voicing (voiceless versus voiced).

(15) *fevers* punning on *favors*; i and e; height (high versus mid).

(16) *money* punning on *mummy*; n and m; point of articulation (bilabial versus alveolar).

(17) *radish* punning on *reddish*; æ and ɛ; height (low versus mid).

(18) *choker* punning on *joker*; č and ǰ; voicing (voiceless versus voiced).

(19) *bleach* punning on *breach*; l and r; point of articulation (alveolar versus postalveolar), tongue configuration (lateral versus retroflex).

(20) *curly* punning on *pearly*; k and p; point of articulation (velar versus bilabial).

(21) *sickens* punning on *thickens*; s and θ; point of articulation (alveolar versus (inter)dental).

(22) *bottle* punning on *battle*; a and æ; frontness (back versus front).

(23) *sylph* punning on *self*; ɪ and ɛ; height (high versus mid).

(24) *clash* punning on *class*; š and s; point of articulation ((alveo) palatal versus alveolar).

(25) *sty* punning on *sky*; t and k; point of articulation (alveolar versus velar).

(26) *rabbit* punning on *rapid*; b and p, t and d; voicing (voiced versus voiceless), voicing (voiceless versus voiced)--cf. Exercise A.

(27) *middlecrass assitude* punning on *middleclass attitude*; r and l, s and t; point of articulation (but see (19) above), manner of articulation (fricative versus stop).

(28) *breezes* punning on *pleases*; b and p, r and l; voicing (voiced versus voiceless), point of articulation (but see (19) above).

(29) *foods* ... *morsels* punning on *fools* ... *mortals*; d and l, s and t; manner of articulation (stop versus liquid), manner of articulation (fricative versus stop).

(30) *mutton* punning on *nothing*; m and n, t and θ, n and ŋ; point of articulation (bilabial versus alveolar), point and manner of articulation (alveolar stop versus (inter)dental fricative), point of articulation (alveolar versus velar).

Exercise C:

(6) k and t, velar versus alveolar.

(7) d and t, voiced versus voiceless.

(8) n and m, alveolar versus bilabial.

(9) a and ɔ, unrounded versus rounded.

(10) θ and t, (inter)dental fricative versus alveolar stop.

(11) ɪ and i, lax versus tense.

(12) æ and ɛ, low versus mid.

(13) k and p, velar versus bilabial.

(14) z and s, voiced versus voiceless.

(15) n and ŋ, alveolar versus velar.

(16) ɛ and ɪ, mid versus high.

(17) v and ð, labiodental versus (inter)dental.

(18) b and v, bilabial stop versus labiodental fricative.

FOOTNOTE

*The material presented here has benefited enormously from the comments and criticisms of Linguistics 601 students at Ohio State from 1972 on, and especially from the advice of my teaching assistants in this course. This paper was completed at the Center for Advanced Study in the Behavioral Sciences. I am grateful for financial support provided by the Spencer Foundation and for sabbatical leave from the Ohio State University.

Title	**Politics of Language**
Level	No prerequisites
Description	This course is based on the premise that if we understand that every discourse is political and that each of us has some political skill in the use of language, we will better understand both our intentions in dealing informally with one another, and the ways in which more influential people have learned to exalt these intuitive and homey skills to use as tactics of group persuasion.
Required Readings	Texts: Bolinger, D. Language: The Loaded Weapon. Goffman, E. Relations in Public. Newman, E. Strictly Speaking. Rodriguez, R. Hunger of Memory. Spender, D. Man-Made Language. Shaw, G.B. Pygmalion.
Syllabus	Linguistic and Prescriptive "Grammars" Micro-Politics of Language Macro-Politics of Language: Groups and Linguistic Choice Macro-Politics of Language: Persuasion and Power
Requirements	Four papers
Source	University of California-Berkeley Instructor: Robin Lakoff

Title	**The Power of Words**
Level	No prerequisite
Description	This course deals with various human interest aspects of linguistics. Topics covered include social judgements of nonstandard dialects, language and politics, and language and sexism. The language of advertising is examined. Cross-cultural differences in rules of taboo/euphemism, paralinguistic rules as well as kinesic, proxemic, and pragmatic rules are discussed. "Power talking" is analyzed in relation to doctor talk, legalese, bureaucratese, etc. The course also discusses various contro-versial issues such as the relationship between language and culture and/or thought, the feasibility of one world language, as well as current issues on bilingualism (competency tests for foreign teaching assistants and/or immigrants, English-only laws, etc.).
Required Readings	Text: Chaika, Elaine. 1982. Language: The Social Mirror. Cambridge, MA: Newbury House. Goshgarian, Gary, ed. 1986. Exploring Language. 4th ed. Boston, MA: Little, Brown and Co.
Syllabus	Introduction Subfields of Linguistics Traits of Language Prescriptive vs Descriptive Language Dialects Language Sociolects Standard vs Nonstandard Language and Thought Language and Culture Bilingualism Language and Ethnic/Racial Prejudice Political Language and Propaganda Artificial Languages Advertising Language and Subliminal Advertising Language and Sexism Taboo and Euphemism Slang and Jargon Writing Pragmatics Paralanguage Kinesics and Proxemics
Requirements	Three exams.
Source	University of Wisconsin-Milwaukee Instructor: Jennifer Petersen

Title **Psycholinguistics**

Level Prerequisite: Introduction to Linguistics or Introduction to Psychology or permission of instructor.

Description Survey of approaches to the nature of language processing. Topics include: biological and neurological prerequisites for language, speech perception; syntactic and lexical processing; aphasia; and child language. Psychological evidence for theoretical linguistic assumptions is considered.

Required Reading Text: Tartter, V.C. Language Processes.

Suggested Readings

Berko, J. "The child's learning of English morphology." In S. Saporta, ed., Psycholinguistics.

Bever, T. "The cognitive bases for linguistic structures." In Hayes, ed., Cognition and the Development of Language.

Blumstein, S.E., W. Milberg, and R. Shrier. 1982. "Semantic processing in aphasia: Evidence from an auditory lexical decision task." Brain and Language; 17: 301-15.

Blumstein, S.E. and K.N. Stevens. 1981. "Phonetic features and acoustic invariance in speech." Cognition; 10: 25-32.

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Chomsky, N. On the Acquisition of Syntax in Children.

Eimas, et al. 1971. "Speech perception in infants." Science; 171: 303-6.

Geschwind, N. 1964. "The development of the brain and the evolution of language." In Georgetown Monograph Series on Language and Linguistics, pp. 155-59.

Horton and Jenkins. The Perception of Language.

Jakobovits and Miron. Readings in the Psychology of Language.

Liberman, A., F.S. Cooper, D. Shankweiler, and M. Studdert-Kennedy. 1967. "The perception of the speech code." Psychological Review; 74: 431-61.

Lieberman, P. 1971. "On the speech of Neanderthal man." Linguistic Inquiry; 2: 203-22.

Linebarger, M., M. Schwartz, and E. Saffran. 1983. "Sensitivity of grammatical structure in so-called agrammatic aphasics." Cognition; 13: 361-92.

Sarno, M.T. Acquired Aphasia.

Swinney, D. "The structure and time course of information interaction during speech comprehension, lexical representation, access, and interpretation." In J. Mehler, E. Walker, and M. Garrett, eds., Perspectives in Mental Representations.

Swinney, D. and D. Hakes. 1976. "Effects of prior context upon lexical access during sentence comprehension." Journal of Verbal Learning and Verbal Behavior; 15: 681-89.

Tannenhaus and Seidenberg. "Do listeners compute linguistic representations?" (manuscript).

Tartter, V.C. The Modularity of Mind.

Wanner, E. and L. Gleitman. Language Acquisition: The State of the Art.

Zurif, E.B., A. Caramazza, R. Myerson, and J. Galvin. 1974. "Semantic feature representations in normal and aphasic language." Brain and Language; 1: 167-87.

Zurif, E.B., A. Caramazza, and R. Myerson. 1972. "Grammatical judgements of agrammatic aphasics." Neuropsychologia; 10:

405-17.

Syllabus

- Foundations for Psycholinguistics
  - A Theory of Language-Modularity
  - Language Communications Systems
  - Neurological and Biological Bases of Language
- Speech Processing
  - Levels of Speech Processing
  - Hemispheric Specialization for Speech
- Sentence Comprehension
  - Levels of Grammatical Processing
  - Role of Lexical Cues in Sentence Processing
  - On-Line Sentence Processing
  - Prose Processing
- Pathologies of Language - Aphasia
  - Introduction
  - Clinical Types of Aphasia
  - Psycholinguistic Approaches to Aphasia
- Child Language Acquisition
  - Linguistic Aspects
  - Cognitive Aspects

Requirements Midterm, term paper, final examination.

Source Brown University
Instructor: Sherry Baum

Title **Psychology of Language**

Description The orientation of this course, and of the field of psycholinguistics, is interdisciplinary--drawing on research and theories from linguistics, psychology, and related disciplines. The first section of the course will consist of an introduction to the field of psycholinguistics and some of the major approaches that have shaped its development, including a consideration of the biological foundations of language. The relation between brain and language and the significance of research on communication skills in other primates will be addressed in this context. The second part of the course concerns the processes involved in comprehension including: speech perception and understanding; the representation of meaning; semantic memory; sentence and discourse processing; and models of discourse processing. The third section of the course will start with the study of reading and will examine language production including: evidence from slips of the tongue; the formulation of speech plans; sign language; conversational interaction; and the psycholinguistics of adult bilingualism. The final section will address some of the basic findings and theories of (first) language acquisition.

Required Readings Text: Carroll, D.W. 1986. Psychology of Language. Monterey, CA: Brooks/Cole.

Atkinson, M. 1985. "How linguistic is the one-word stage?" In M. Barrett, ed., Children's Single-Word Speech. Chichester, England: John Wiley and Sons. pp. 289-312.

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Bowerman, M. 1979. "The acquisition of complex sentences." In P. Fletcher and M. Garman, eds., Language Acquisition: Studies in First Language Development. Cambridge, England: Cambridge U Press. pp. 285-305.

Clark, H.H. and B.C. Malt. 1984. "Psychological constraints on language: A commentary on Bresnan and Kaplan and on Givon." In W. Kintsch, J.R. Miller, and P.G. Polson, eds., Method and Tactics in Cognitive Science. New York, NY: Academic Press. pp. 191-214.

Cole, R.A. and J. Jakimik. 1980. "A model of speech perception." In R.A. Cole, ed., Perception and Production of Fluent Speech. Hillsdale, NJ: Lawrence Erlbaum. pp. 133-63.

Crowder, R.G. 1982. The Psychology of Reading: An Introduction. New York, NY: Oxford U Press.

Dell, G.S. and P.A. Reich. 1981. "Stages in sentence production: An analysis of speech error data." Journal of Verbal Learning and Verbal Behavior; 20: 611-29.

Gibbs, R.W. 1979. "Contextual effects in understanding indirect requests." Discourse Processes; 2: 1-10.

Grosjean, F. 1982. Life with Two Languages. Cambridge, MA: Harvard U Press.

Hockett, C.F. 1960. "The origin of speech." In W. S-Y Wang, ed. 1982. Human Communication: Language and Its Psychological Bases. San Francisco, CA: W.H. Freeman.

Karmiloff-Smith, A. 1979. "Language development after five." In P. Fletcher and M. Garman, eds., Language Acquisition: Studies in First Language Development. Cambridge, England: Cambridge U Press. pp. 307-23.

Mandler, J. 1982. "Some uses and abuses of a story grammar." *Discourse Processes*; 5: 305-18.

Miller, G.A. 1964. 1967. "The psycholinguists." In G.A. Miller, ed., The Psychology of Communication. Baltimore, MD: Penguin. pp. 70-92.

Newman, J.E. 1985. "Processing spoken discourse: Effects of position and emphasis on judgements of textual coherence." *Discourse Processes*; 8: 205-27.

Schegloff, E.A. 1968. "Sequencing in conversational openings." *American Anthropologist*; 70: 1075-95.

Shatz, M. 1982. "On mechanisms of language acquisition: Can features of the linguistic environment account for development?" In E. Wanner and L.R. Gleitman, eds., Language Acquisition: The State of the Art. New York, NY: Cambridge U Press. pp. 102-27.

Swinney, D. 1984. "Theoretical and methodological issues in cognitive science: A psycholinguistic perspective." In W. Kintsch, J.R. Miller, and P.G. Polson, eds., Method and Tactics in Cognitive Science. Hillsdale, NJ: Lawrence Erlbaum. pp. 217-33.

Terrace, H.S. 1983. "Apes who 'talk': Language or projection of language by their teachers?" In J. deLuce and H.T. Wilder, eds., Language in Primates. New York, NY: Springer-Verlag; pp. 19-42.

Syllabus

What Is Psycholinguistics?
The Nature of Language
Information Processing and Cognition
Brain and Language
Hemispheric Differences
Perception of Isolated Speech Sounds
Understanding Fluent Speech
Representation of Meaning
Lexical Access
Sentence Comprehension
Discourse Coherence
Discourse Processing and Memory
Reading
Language Production
Sentence Production/Sign Language
Conversational Interaction
Schizophrenic Language/Bilingualism
Psycholinguistics of Bilingualism
Language Development

Requirements Midterm exam, final exam, position paper, research paper.

Source: University of New Mexico
Instructor: Jean E. Newman

Title	**Structure of Black English**
Level	Prerequisite: Introduction to Linguistics, Study of Language or permission of the department.
Description	This course is a survey of linguistic featues which make Black English distinctive from other varieties of English spoken in the USA, particularly network English. When possible, it will be compared to white nonstandard varieties of English (particularly "Southern English") to show how far their similarities go and where they end. We will focus particularly, but not exclusively, on its time reference system, the status of the copula, the forms and distributions of negators and of personal pronouns, the strategies of focusing, and the structures of relative clauses and interrogative sentences. Ethnographically, we will also discuss the contexts of use of Black English. From a historical point of view, we will also examine the two main hypotheses about its genesis: the dialectologist and the creolist hypotheses. The question of whether BE is structurally moving closer to or further away from white English will be addressed within the last perspective, even though synchronic discussions of its structural characteristics will have given good hints of what the answer should be.
Required Readings	Dillard, J.L. 1972. Black English: Its History and Usage in the United States.
Suggested Readings	Baugh, John. 1983. Black Street Speech: Its History, Structure, and Survival. Austin, TX: U TX Press.
Requirements	Midterm, final or term paper.
Source	University of Georgia Instructor: Salikoko S. Mufwene

Title	**Textual Analysis: Words, Images, Music**
Level	Prerequisites: Overview of the Field of Linguistics or Introductory Linguistics course
Description	How do we decode messages? Using techniques borrowed from linguistics and communication theory, the course will consider a broad variety of "texts," including commercials, songs, political speeches, films, paintings, poems, plays, buildings, and folk tales. In analyzing these texts, we will examine the processes which societies use to enlighten, to obscure, and to entertain. The text will be seen as both commodity and communicative act, and relationships among linguistic, visual, and musical codes will be stressed. The course will consist of team-taught lectures.
Required Readings	Scholes, Robert, et al. 1982. Elements of Literature, 5. New York, NY: Oxford U Press. Traugott, Elizabeth Closs and Mary Louise Pratt. 1980. Linguistics for Students of Literature. New York, NY: Harcourt Brace Jovanovich.
Suggested Readings	Eisenstein. "The Odessa Steps." Potemkin. Monaco. "Mediography." Umiker-Sebeok. "The Seven Ages of Women."
Syllabus	Language, Linguistics, and Textual Analysis The Text as Commodity Elements of Visual Language The Lexicon Text and Social Context Phonology Elements of Music Syntax Elements of Film Semantics and Role Relations Metaphor and Myth Pragmatics and Speech Act Theory Speech Genres Point of View Narrative and Ideological Structures Across Media
Requirements	Three tests, two written reports, class participation.
Source	University of Maryland-Baltimore County Instructors: Stanley McCray Angela Moorjani

788

Title	**Thinking Linguistics**
Description	This course encourages students to ask probing and meaningful questions about the nature of language and its inner workings, and to take some first steps toward finding answers. First, the course will look at the history of people's efforts to think about their language through the centuries, from the Greek philosophers to the very new school of "transformational" grammarians. Second, it looks in much greater detail at the latest theory of language, transformational grammar. Student will do problems as a modern linguist would, handling data and trying to see how they are relevant to the central questions raised most strikingly about language in the last thirty years. Finally, it will look at some "post-generative" developments in linguistics, such as meaning and pragmatics.
Required Readings	Texts: Clark, Virgina, et al. 1985. Linguistics: Introductory Readings. Heny, Jeannine and Frank Heny. Introduction to Linguistics. (manuscript).
Syllabus	Romans and Greeks Empiricism versus Rationalism The Nineteenth Century Descriptive Linguistics Chomsky and TG The Language System (Transformational Grammar) Word Formation in English Competence and Performance Arguing for Structures in Language Building More Complex Structures Meaning in Structure Pronouns Empty Categories Move-Alpha: Language Patterns Semantics Beyond Semantics Proper: Language in Context
Requirements	Written homework assignments, two midterms, one final.
Source	University of North Carolina Instructor: Jeannine Heny

Title	**Traditional Grammars**
Level	Prerequisite: 2.5 grade point average
Description	Review and evaluation of the principles of traditional grammar as reflected in the works of the best grammarians. Illustrations in several languages. Comparison of varieties of grammatical models used to describe these languages. Evaluation of degree to which a grammar developed essentially for Latin describes other languages, particularly non-Indoeuropean languages. Practice and evaluation of different models of parsing.
Required Readings	Texts: Curme. English Grammar. Palmer, F. Grammar.
Suggested Readings	Allen, R. L. English Grammars & English Grammar. Bryant, M. A Functional English Grammar. Jespersen, O. Essentials of English Grammar. Kruisinga, E. A Handbook of Present Day English.
Syllabus	Grammar Traditional Grammar Parts of Speech Tense and Voice Mood and Aspect Sentence Subject Predicate Complex Sentence
Requirements	Class reports, term paper, quizzes and assignments, class participation
Source	University of Florida Instructor: Paul Kotey

INNOVATIONS IN LINGUISTICS EDUCATION 2.2 (1982), 77-98.

WORD ACCENT, PHRASE ACCENT, AND METER*

Arnold M. Zwicky

Ohio State University

0. The material below, consisting of text with twelve interspersed exercises, was originally written as an essentially self-contained introduction to word accent (that is, for English, stress), phrase accent, and meter, to be used as supplementary material in an upper-division/graduate introduction to linguistics. Students frequently evince interest in these topics, and students with literary interests genuinely need something to tie what they know about poetry to what they are learning about linguistics. As it happens, I haven't been able to insert this unit into the already crowded agenda of the course, but Nancy Levin has used a version of it in an undergraduate introduction to phonology course in the English Department at the State University College of New York at Fredonia, with a good response from her students. Sample answers are provided in an appendix.

Some of the exercises are designed to get the student used to listening and to using the notation, that is, to get the student acquainted with the concepts. A number ask for generalizations. I believe that the 'formulate a principle' or 'make a generalization' task is so central in learning anything about language that I introduce exercises of this sort as soon as possible--here, in exercise 2. The non-English word accent exercises (4-6) illustrate the three most common types of fixed accent systems, and the generalization usually stands out so clearly that students are able to disregard the unfamiliar spelling systems and exotic symbols. (Note that the text always talks about accent on *syllables*. Repeated use of this locution is supposed to lead students away from contemplating answers framed in terms of vowels, consonants, or worse, letters. Students who don't read the text, and a few overingenious types, will not be deterred, however.) The final three exercises involve using the notation, making generalizations, and giving evidence for claims. They stress a view of verse as pattern plus an allowable range of deviation, and they introduce generalizations involving frequency rather than occurrence/nonoccurrence. The humorous and/or popular character of the examples is intended to help keep the student alert in the midst of all this.

An important characteristic of words, in a great many languages, is that certain syllables stand out more than others--certain syllables are *accented*, and others are not. The most common situation is for there to be only one accented syllable per word, as in the English words *below* (accented on the last syllable), *silly* and *parable* (accented on the first), and *examine* and *inaccurate* (accented on the second). Even in languages (like English) that have words with more than one accented syllable, most common words have only one accented syllable. In addition, it is usually the case

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in such languages that when there is more than one accented syllable in a word, one of them predominates: *snowman* has two accented syllables, the first more prominent than the second; *monsoon* is similar, but the second syllable is more prominent; *hurricane* has the primary accent on the first syllable, but a secondary accent on the last; *inexact* has the reverse pattern, with a subsidiary accent on the first syllable and the main accent on the last; *Montana* has the accent pattern secondary-primary-weak; *category* has the pattern primary-weak-secondary-weak; *parasitic* has secondary-weak-primary-weak; *aquamarine* has secondary-weak-weak-primary; and other patterns are possible.

At this point it is clear that some notation for these various accent levels would be useful. Several systems are in use: one employs marks ultimately due to Classical Greek metrics (an 'acute' mark ´ for primary accent, a 'grave' mark ˋ for secondary accent, and either no mark or a 'breve' ˘ for weakly accented, or so-called 'unaccented', syllables); another employs numerals (a 1 for primary accent, a 2 for secondary accent, and either no mark or a zero for unaccented syllables). In the second system, the accent patterns of the examples already given are as follows:

2 syllables	0 1 below 2 1 monsoon	—	1 0 silly 1 2 snowman
3 syllables	— 2 0 1 inexact	0 1 0 examine 2 1 0 Montana	1 0 0 parable 1 0 2 hurricane
4 syllables	2 0 0 1 aquamarine	2 0 1 0 parasitic	1 0 2 0 category
	primary accent on last syllable	primary accent on next-to-last syllable	primary accent on first syllable

There are other possible accentuations for four-syllable words in English: 0 2 0 1, in *comedienne* and *inopportune*, alongside 2 0 0 1 in the table; 2 0 1 2 in *anticyclone*, alongside 2 0 1 0 above, and 1 0 0 2 in *alphabetize*, alongside 1 0 2 0 above; and several patterns with primary accent on the *second* syllable--0 1 0 0 in *mechanical* and *inaccurate*, 2 1 0 0 in *cantankerous*, and 2 1 0 2 in *misdecorate*.

Exercises

1. Assign accent patterns to the following English words. Do *not* look them up in a dictionary; say them *out loud*, or have a friend read them out loud to you, perhaps several times, and listen carefully.

kaleidoscope
canoe
commentator
accent
parrot
pervert [noun]
pervert [verb]

Tennessee
maniac
canopy
bandanna
despotic
telegraph
telegraphy
telegraphic

2. English has no words with the accent pattern 0 0 1--hence the blank in the table right above *inexact*. There also aren't any 0 0 0 1 words (otherwise like *aquamarine*, but with weakly accented first syllable) or any 0 0 1 0 words (otherwise like *parasitic*, but with weakly accented first syllable), or any 0 0 1 2 words (otherwise like *anticyclone*, but with weakly accented first syllable). Formulate one principle that disallows these patterns, while permitting the other patterns that are illustrated above.

A syllable with secondary accent has an ambiguous status in English. On the one hand, it has less accent than the syllable with primary accent, so that it can count as *not* accented. On the other hand, it is more prominent than unaccented syllables, so that it can count as *accented*. This ambiguity is widely exploited in English verse, where syllables with secondary accents sometimes count as unaccented, sometimes as accented. This is easily seen in nursery verse, where a word like *Banbury* (1 2 0) sometimes counts as having only one accented syllable--

(1) Ríde ă cóck-hórse tŏ Bánbŭry̆ Cróss

Tŏ búy lĭttlĕ Jóhnny̆ ă gállŏpĭng hórse

and sometimes as having two--

(2) Ás Í wăs góing tŏ Bánbúry̆

Ŭpón ă súmmĕr's dáy,

My̆ dáme hăd búttĕr, éggs, ănd frúit,

Ănd Í hăd córn ănd háy.

(rhymes 28 and 27 in Opie and Opie, *The Oxford Dictionary of Nursery Rhymes*).

So far I've treated English word accent intuitively, trusting that your own feelings about which syllables are most prominent will agree with mine (though I should point out that some people who produce and perceive accent levels perfectly well in ordinary circumstances have a lot of trouble making explicit judgments about these levels; there is, unfortunately, no guarantee that being able to do something means you can describe what it is you're doing). But what is the physical reality corresponding to these accent levels? The matter turns out to be quite complex. The subjective impression that accented syllables are *louder* than unaccented is not very reliable; the *pitch* of the syllable and its *duration* are better indicators of accent in English, with higher pitch and extra length being associated with accent (see the survey in Lehiste, *Suprasegmentals*, sec. 4.4). Such a complex system of signalling accent through a combination of pitch, duration, and loudness is known as *stress accent*, or simply *stress*. It is to be contrasted with systems that use only pitch (*pitch accent*)[1] as the indicator of prominence on specific syllables. Japanese has a pitch accent; the following phrases have different accent patterns--

hási desu	'it's chopsticks'
hasí desu	'it's a bridge'
hasí désu	'it's an edge'

(from J.D. McCawley, *The Phonological Component of a Grammar of Japanese*, p. 135); in each case the accented syllables have high pitch and the others low pitch. Ancient Greek had a somewhat more elaborate pitch accent system, with both a primary accent (the so-called 'acute', characterized by high pitch) and a secondary (the so-called 'circumflex', characterized by a rise and then fall in pitch within one syllable), and with the unaccented ('grave') syllables bearing low pitch (Sturtevant, *The Pronunciation of Greek and Latin*, ch. 4).

In all of these languages, the arrangement is basically one primary accent per word. The question to be asked about any particular word is: *which syllable* has the primary accent? However, there are languages that use pitch and length in a very different, and quite un-English way: in them, the pitch of each syllable, or the length of each vowel or consonant, may be chosen (perhaps with a few restrictions) from a set of two or more possibilities. In these languages, the question is: *which pitch/length* does this syllable have? So, in Mandarin (Chinese), there are many sets of words that differ only in their pitch levels--a syllable pronounced much like American English *shir* means 'division' with a level high pitch, 'ten' with a pitch rising from mid to high, 'dung' with a pitch that dips briefly to low and then rises to high, or 'to be' with a pitch falling from high to low (these are customarily graphed as ˥ , ˧˥ , ˨˩˦ , ˥˩ , or labeled as 55, 35, 214, 51, with the numbers going from lowest pitch 1 to highest pitch 5: Chao, *A Grammar of Spoken Chinese*, sec. 1.3.4). Here, the choice of pitch level carries as much meaning as the choice of vowel in the English words *meat*, *mate*, *mutt*, and *moot*. Languages that use choice of pitch level to contrast different words are sometimes called *tone languages*. Languages that use choice of length in the same way might be called *quantity languages*. The term is not standard, but languages of this type are very numerous. In Korean, for instance, there are contrasts between [seda] 'to count' and [se:da] 'string', both with a first vowel roughly like that in English *late*, and between [sɛm] 'fountain' and [sɛ:m] 'jealousy', both with a vowel like that in English *let*--but in Korean the vowel in the second word of each pair is noticeably longer than the vowel in the first (Ladefoged, *A Course in Phonetics*, pp. 23-4). (Notice in the transcription that [e:] is not two sounds, some sound [e] followed by another sound [:]; it is simply a longer version of the sound transcribed [e].)

So far I've contrasted accent systems, in which the basic principle is the marking of a single syllable in a word as most prominent, with the use of pitch and length as properties of individual syllables or sounds. Virtually every known language has some sort of accent system, but only some are tone languages or quantity languages.

There are, alas, a rather large number of types of accent systems. English has a particularly complex system; in part, the placement of English stress seems to be utterly arbitrary and associated with particular words (so that *serif*, *tariff*, *rabbit*, *abbot*, *Perry*, *merit* have stress on the first syllable, while *giraffe*, *carafe*, *Marie*, *abut*, *kaput*, and *legit* have it on the last, though the vowels and consonants in the words are very similar), but to some extent it can be predicted. In many languages, the position of accent is not so *free* as it is in English, but instead is wholly predictable (or *fixed*), on the basis of syllable position and/or the vowels and consonants involved.

Exercises

3. Below are pairs of related English words, nouns in Column A and related adjectives with the ending *-ic* in column B.

(a) For each word, mark the syllable with primary stress with the numeral 1.

(b) Formulate a simple principle that governs where primary stress falls in the words of Column B.

A	B
cone	conic
scene	scenic
rune	runic
hygiene	hygienic
Islam	Islamic
icon	iconic

A	B
atom	atomic
nomad	nomadic
angel	angelic
volcano	volcanic
symphony	symphonic
aroma	aromatic
alcohol	alcoholic
period	periodic
acrobat	acrobatic
metronome	metronomic
electron	electronic
anemia	anemic
catastrophe	catastrophic
cataclysm	cataclysmic
aristocrat	aristocratic
hermaphrodite	hermaphroditic

4. Below are some Turkish words (in ordinary Turkish orthography), with English translations. The syllable with primary stress has been marked with a ´. Formulate a principle that says where Turkish stress is placed.

él	'a hand'
elím	'my hand'
deníz	'an ocean'
denizé	'to an ocean'
denizín	'of an ocean'
evcikdén	'from a little house'
dişimizín	'of our tooth'
dişlerimizín	'of our teeth'
evcikimizé	'to our little house'
evciklerimizé	'to our little houses'

5. Below are some Finnish words (in ordinary Finnish orthography), with English translations. The syllable with primary stress has been marked with a ´. Formulate a principle that says where Finnish stress is placed.

jós	'if, whether'
sýy	'cause, reason'
níin	'thus, so, yes'
nýt	'now'
héti	'at once'
sékä	'and'
súuri	'large'
láulan	'I sing'
láulaa	'(s)he sings'
láulamme	'we sing'

láulavat	'they sing'
hárrastan	'I'm interested in'
hárrastamme	'we're interested in'
rákennustaide	'architecture'
sánomalehti	'newspaper'
rákennustaiteen	'of architecture'
rákennustaidetta	'some architecture'

6. Below are some words in Yawelmani Yokuts (a native language of California), adapted from Kuroda's *Yawelmani Phonology*. The syllable with primary stress has been marked with a ´. Formulate a principle that says where stress is placed in this language.

kí	'this'
náʔ	'I'
ké:ni	'to this'
ʔámin	'they'
k’íley	'cloud'
ʔílkit	'is/was sung'
ʔilíkhin	'sing/sang'
p’axá:t’it	'is/was mourned'
k’ilé:yaw	'in a cloud'
ʔuplálliʔ	'wild dove'
ʔilikmíxhin	'sing/sang with'
p’axat’míxhin	'mourn(ed) with'
ʔuplalié:ni	'to a wild dove'

7. The English words below all have primary stress on the second syllable. Those in group A have secondary stress on the first syllable, while the first syllable of the words in group B is unstressed. What distinguishes the two groups?

A.
Montana
cantankerous
anticipate
bandanna
shampoo
campaign
ambition
bombard
amphora
Rangoon
Bengali
Mankato
fastidious
asbestos
escort [verb]
tableau
Atlantic
raclette
cartoon
torment [verb]
Marconi
Margolis

B.
canoe
banana
lament
chemise
guitar
atomic
capacity
cigar
calliope
Adorno
accordion
affair
bazaar
position
assert
machine
Moran
Columbus

8. There are a large number of exceptions to the main generalization distinguishing groups A and B in the preceding exercise. In all of them, a word you would expect to be in group A, with secondary stress on the first syllable, turns up in group B, with unstressed first syllable. There is, for example, some tendency for very familiar names to lose a secondary stress on the first syllable; people who live in Saskatchewan or Atlanta are more likely to place the names *Saskatchewan* and *Atlanta*, respectively, in group B than are those of us with less familiarity with these places. Some other exceptions are systematic, and can be used to refine the main generalization. Consider the words in group C below (with unstressed first syllable). Compare them both with group A and with a new group D (with secondary stress on the first syllable), and state an exception clause on the main generalization.

C. Capri
abrasive
acrylic
acrostic
agree
matriculate
Patricia
quadrille
acute
acquire
D. abstract [adjective]
poltroon
Mancuso

The accent patterns of words are in some ways most obvious in situations where rhythm is of the essence--in verse, whether set to music or not. The rhythmic patterning of verse (indeed, the rhythmic patterning of all speech) depends, however, not only on the accent patterns of individual words spoken in isolation, but also on patterns of prominence assigned to *groups* of words, ultimately to whole sentences. Some words, like the English *to* associated with 'infinitive' verb forms, are ordinarily subordinated to the following verb, as is a pronoun subject to its following verb:

(Ĭ wánt) (tŏ gó)

A combination of adjective and noun (*good tea*, *excellent jam*, *heavy weather*, *obnoxious buffoons*) also has greater prominence on the second word, the noun, but here the first word is not unaccented. Rather, the adjective has a secondary accent: *gòod téa*, *èxcellent jám*, and so on. Note that we are providing *two* accentual descriptions of a phrase like *heavy weather*--one for the accent pattern of each word in isolation, one for the combination. There are important differences between the two systems. In particular, there is much more room for variations on an accentual theme in phrase patterns than in word patterns. In *I see you*, any one of the three words

can bear the primary accent, with a different meaning associated with each choice. But a word like *obnoxious* must always have the primary accent on the second syllable; most words have only one accent pattern, and the few
2 0 1   1 0 2
examples of variation in pattern (like *Tennessee* vs. *Tennessee*) are associated not with meaning differences, but with dialect or style differences.

Nevertheless, for the purposes of verse the *similarities* between the two levels of accentual organization must be exploited. The phrase-accent pattern of *Ĭ wánt* and *tŏ gó* must be identified with the word-accent pattern
0 1   0 1   0 1   0 1
of *below*, *anoint*, *command*, and *ago*; phrases like *good tea* as well as words
2 1   0 1
like *monsoon* must be treatable either as weak-strong (like *below* and *I want*)
2 0 0 1 00
or as strong-strong; and a long word like *antediluvian* must count as equivalent to such two-word phrases as *àccŭrăte ínstrŭmĕnt* or *àmŏrŏus dállĭănce*.

In fact, in a verse form the accentual patterns of phrases must be matched up with an abstract pattern characteristic of that form. The units (called *feet*) composing these abstract patterns themselves each consist of one strong syllable with associated weak syllables. The weak-strong foot of *to go* and *ago* is traditionally called an *iamb* (verses composed primarily of iambs are then *iambic*). Much English verse is evenly iambic; consider the beginning of the 'letter poem' from the last chapter of *Alice's Adventures in Wonderland*:

(3) Thĕy tóld mĕ yóu hăd béen tŏ hér,
Ănd méntiŏned mé tŏ hím

Here the accent pattern of this sentence has been matched to a completely regular iambic *meter*:

˘ ´ | ˘ ´ | ˘ ´ | ˘ ´
˘ ´ | ˘ ´ | ˘ ´   or, equivalently:

ws - ws - ws - ws
ws - ws - ws

(Notice that the two syllables of *mentioned* are split between two feet; meter is no respecter of word boundaries.)

The impression of great regularity in verse depends on more than the existence of a dominant foot type throughout. Verse is also divided into *lines*, normally all of the same length in feet. (Traditional verse in English also requires certain lines to *rhyme*. But rhyme is by no means a universal characteristic of poetic forms--neither ancient Greek nor ancient Latin verse employed it, for instance--while some sort of metrical organization is.) In English popular verse by far the dominant line length is four feet, technically *tetrameter*. (There are corresponding terms for lines of other lengths--*monometer* (one foot), *dimeter* (two), *trimeter* (three), *pentameter* (five), *hexameter* (six), *heptameter* (seven), *octameter* (eight).) Both lines of the first Banbury Cross rhyme, (1) above, have four feet; so do the first and third lines of the second Banbury Cross rhyme (2), and the first line of the *Alice* letter poem (3).

But what of the remaining lines of (2) and (3)? They seem to have only three feet. Appearances are sometimes deceiving, however. To see what is really going on, beat your fingers or clap your hands on the strong syllables of (2), reprinted below, as you read it. You should find that

(2) As Í was góing to Bánbúry

Upón a súmmer's dáy,

My dáme had bútter, éggs, and frúit,

And Í had córn and háy.

you don't rush immediately from the last word, *day*, in the second line to the first word, *my*, in the third, but rather that you pause briefly--and that in that pause a *beat falls*. The second line of (2) has the equivalent of a musical *rest* at its end (one might call it a *silent foot*, if the name weren't so contradictory). In fact, (2)--and also (3), though this is not obvious in a two-line extract--are just as much tetrameter as (1); in (2) and (3) the form is varied some by a regular alternation between lines with four full feet and those with three feet plus a rest. For (3), we can notate this pattern as

˘ ´ | ˘ ´ | ˘ ´ | ˘ ´

˘ ´ | ˘ ´ | ˘ ´ | R

Any verse as rigidly regular in meter as (3) would quickly become singsong and boring. Extended passages of unvarying iambs are very rare in English verse, in fact. Usually a predominantly iambic pattern is varied by the addition or elimination of weak syllables, or by the reversal of the pattern, especially at certain positions within the line. The Banbury Cross rhyme (2), for instance, is perfectly iambic in lines 2 through 4, but its first line has two alterations in the pattern:

˘ ´ | ˘ ´ | ˘ ˘ ´ | ´ ˘

The third foot has an extra weak syllable, and the fourth is reversed, strong-weak rather than weak-strong.

Exercise

9. Below is the first stanza of a nonsense poem, 'The Jumblies', by Edward Lear (*The Complete Nonsense of Edward Lear*, pp. 71-4).

(a) Notate the pattern of feet and rests, using ˘ to stand for a weak syllable, ´ for a strong, | for the boundary between feet, and R for a rest.

(b) Argue that this poem is iambic tetrameter.

(c) What is the most frequent type of deviation from the iambic pattern in this poem?

(d) Which feet are most likely to show this deviation?

They went to sea in a sieve, they did;
In a sieve they went to sea:
In spite of all their friends could say,
On a winter's morn, on a stormy day,
In a sieve they went to sea.
And when the sieve turned round and round,
And everyone cried, "You'll all be drowned!"
They called aloud, "Our sieve ain't big;
But we don't care a button, we don't care a fig:
In a sieve we'll go to sea!"
Far and few, far and few,
Are the lands where the Jumblies live;
Their heads are green and their hands are blue;
And they went to sea in a sieve.

The iamb is not the only type of foot in use in English verse. Three others occur with moderate frequency. First, there is the reversed iamb, or *trochee*, as in *weather*, in the *bury* of *Banbury* in (2), or in *know it*. The witches' incantation in Shakespeare's *Macbeth*--

(4) Double, double, toil and trouble,
Fire burn and cauldron bubble.

is almost perfectly trochaic (indeed, if *fire* is read with two syllables rather than one, as it almost always is, the lines *are* perfectly trochaic). Then there is an iamb with an extra weak syllable, an *anapest*, as in *in a sieve* or *inexact*; and finally a trochee with an extra weak syllable, a *dactyl*, as in *care for it* or *parable* or either half of *unsuitability*. To summarize:

	strong syllable last	strong syllable first
2-syllable feet	˘ ´ IAMB	´ ˘ TROCHEE
3-syllable feet	˘ ˘ ´ ANAPEST	´ ˘ ˘ DACTYL

(Note the stress patterns of these technical terms: *iamb*, *trochee* and *dactyl* are all 1 2, *anapest* is 1 0 2. If you've done exercise 3, you should know where the primary stress falls in *iambic*, *trochaic*, *dactylic*, and *anapestic*.)

It's useful to have a term for an abbreviated iamb or trochee, for a foot consisting entirely of one strong syllable. This is a *spondee*[2] (stress pattern 1 2 again; the related adjective is *spondaic*).

Exercises

10. Below are four limericks, a clean one by Edward Lear and then three less savory examples from George Legman's collection *The New Limerick* (#84, 926, and 1605).

(a) Notate the pattern of feet and rests, as before, for the Lear limerick.

(b) What is the dominant meter in these verses--iambic, trochaic, anapestic, or dactylic?

(c) What are the most frequent types of deviation from the pattern, and where do they occur?

(d) Limericks are customarily said to have five lines 'of which the first, second, and fifth, consisting of three feet, RIME; and the third and fourth lines, consisting of two feet, RIME.' (Thrall, Hibbard, and Holman, *A Handbook to Literature*, p. 258; *rime* is their eccentric spelling of *rhyme*)--that is, they are customarily viewed as a five-line form with the pattern

trimeter
trimeter
dimeter
dimeter
trimeter

Argue that limericks are in fact tetrameter, just like almost all English popular verse.

A There was an Old Man who supposed
That the street door was partially closed;
But some very large Rats
Ate his coats and his hats,
While that futile Old Gentleman dozed.

B The enjoyment of sex, although great,
Is in later years said to abate.
This well may be so,
But how would I know?--
I'm now only seventy-eight.

C The Grecians were famed for fine art,
And buildings and stonework so smart.
They distinguished with poise
The men from the boys,
And used crowbars to keep them apart.

D There was a young girl from Samoa
Who said to a sailor named Noah:
"You can kiss me and squeeze me,
But remember, to please me
I'm allergic to spermatozoa."

11. Below are four examples of a single verse form, all taken from Anthony Hecht and John Hollander's *Jiggery-Pokery* (pp. 81, 93, 106, and 112).

(a) Notate the pattern of feet and rests, as before, for 'No Foundation'.

(b) What is the dominant meter in this form?

(c) What is the most frequent type of deviation from this pattern, and where does it occur?

(d) The form is customarily printed as two stanzas consisting of four lines each. If so, how many feet do these lines have?

(e) Suggest some reasons why you might want to look at this form as tetrameter (again).

Historical Reflections

Higgledy-piggledy,
Benjamin Harrison,
Twenty-third President,
Was, and, as such,

Served between Clevelands, and
Save for this trivial
Idiosyncrasy,
Didn't do much.

* * *

Vice

Higgledy-piggledy
Thomas Stearns Eliot
Wrote dirty limericks
Under the rose,

Using synecdoches,
Paranomasias,
Zeugmas, and rhymes he de-
Plored in his prose.

* * *

No Foundation

Higgledy-piggledy
John Simon Guggenheim,
Honored wherever the
Muses collect,

Save in the studies (like
Mine) which have suffered his
Unjustifiable,
Shocking neglect.

* * *

High Art

Higgledy-piggledy
Anthony Hollander,
Two-bards-in-one, worked their
Brains to a storm,

Seeking out words for the
Antepenultimate
Line of this dismally
Difficult form.

12. Bob Dylan's music comes in a variety of forms, some of them quite complex. But most of his songs use either traditional American folk song forms or blues forms, often with considerable freedom in the number of unaccented syllables in a foot. Exhibit A below has three verses and the refrain of a Dylan folk song, 'Lay Down Your Weary Tune' (1964-5); Exhibit B has three verses and the refrain of a Dylan blues song, 'Tombstone Blues' (1965). (Quotations from *Bob Dylan*, a 1974 Warner Bros. collection of music and lyrics.)

(a) Notate the pattern of feet and rests, as before, for 'Lay Down Your Weary Tune'.

(b) What is the dominant meter in this lyric? The abstract scheme of feet and rests?

(c) What is the most frequent type of deviation from these patterns, and where does it occur?

(d) Read through 'Tombstone Blues' several times, out loud and fairly fast, to get the beat. What is the abstract scheme of feet and rests in the verses? In the refrain?

(e) What is the dominant meter?

A Struck by the sounds before the sun,
I knew the night had gone,
The morning breeze like a bugle blew
Against the drums of dawn.

The ocean wild like an organ played
The seaweed's wove its strands,
The crashin' waves like cymbals clashed
Against the rocks and sands.

I stood unwound beneath the skies
And clouds unbound by laws,
The cryin' rain like a trumpet sang
And asked for no applause.

[Refrain]
Lay down your weary tune, lay down,
Lay down the song you strum
And rest yourself 'neath the strength of strings,
No voice can hope to hum.

B 1. The sweet pretty things are in bed now of course
The city fathers they're trying to endorse
The reincarnation of Paul Revere's horse
But the town has no need to be nervous.

The ghost of Belle Starr she hands down her wits
To Jezebel and nun she violently knits
A bald wig for Jack the Ripper who sits
At the head of the chamber of commerce.

4. The King of the Philistines has soldiers to save
Put jawbones on their tombstones and flatters their graves
Puts the pied piper in prison and fattens the slaves
Then sends them out to the jungle.

Gypsy Davey with a blow torch he burns out their camps
With his faithful slave Pedro behind him he tramps
With a fantastic collection of stamps
To win friends and influence his uncle.

6. Where Ma Raney and Beethoven once unwrapped their bed roll
Tuba players now rehearse around the flagpole
And the National Bank at a profit sells road maps for the soul
To the old folks home and the college.

Now I wish I could write you a melody so plain
That could hold you dear lady from going insane
That could ease you and cool you and cease the pain
Of your useless and pointless knowledge.

[Refrain]
Mama's in the fact'ry
    She ain't got no shoes
Daddy's in the alley
    He's lookin' for food
I'm in the streets
    With the Tombstone Blues.

Appendix: Sample Answers

1. kaleidoscope: 0 1 0 2
canoe: 0 1
commentator: 1 0 2 0
accent: 1 2 (1 0 in British English)
parrot: 1 0
pervert [noun]: 1 2
pervert [verb]: 0 1
Tennessee: 2 0 1 (1 0 2 for some American speakers)
maniac: 1 0 2
canopy: 1 0 0
bandanna: 2 1 0
despotic: 0 1 0 or 2 1 0
telegraph: 1 0 2
telegraphy: 0 1 0 2
telegraphic: 2 0 1 0

2. No English word can begin with two or more unaccented syllables.

3. a.	1 cone	1 conic
	1 scene	1 scenic
	1 rune	1 runic
	1 hygiene	1 hygienic
	1 Islam	1 Islamic
	1 or Islam	
	1 icon	1 iconic
	1 atom	1 atomic
	1 nomad	1 nomadic
	1 angel	1 angelic
	1 metal	1 metallic
	1 volcano	1 volcanic
	1 symphony	1 symphonic
	1 aroma	1 aromatic
	1 alcohol	1 alcoholic
	1 period	1 periodic
	1 acrobat	1 acrobatic
	1 metronome	1 metronomic
	1 electron	1 electronic
	1 anemia	1 anemic
	1 catastrophe	1 catastrophic
	1 cataclysm	1 cataclysmic
	1 aristocrat	1 aristocratic
	1 hermaphrodite	1 hermaphroditic

4. The last syllable of a word is stressed.

5. The first syllable of a word is stressed.

6. The next-to-last syllable of a word (or the only syllable, if the word is a monosyllable) is stressed.

7. Words in group A have two consonants between their first and second vowels, while those in group B have only one. [Note that this generalization must be made in terms of sounds rather than letters: *calliope*, *accordion*, *affair*, *assert*, and *machine* in group B are spelled with two consonant letters in the relevant place, but are pronounced with only one consonant sound there.]

8. The consonants *r y w* (the full set of approximants in English) do not count at the end of a sequence of consonants. [Note that *r* does count at the beginning of such a sequence: *cartoon*, *torment*, *Marconi*, and *Margolis* are in group A. The effect of the exception clause is to require two (or more) consonants preceding an *r*, *y*, or *w* for a word to fall into group D.]

9. (a)

```
  ˘ ´   |   ˘ ´ | ˘ ˘ ´ | ˘ ´
  ˘ ˘ ´ |   ˘ ´ |   ˘ ´ | R
  ˘ ´   |   ˘ ´ |   ˘ ´ | ˘ ´
  ˘ ˘ ´ |   ˘ ´ | ˘ ˘ ´ | ˘ ´
  ˘ ˘ ´ |   ˘ ´ |   ˘ ´ | R
  ˘ ´   |   ˘ ´ |   ˘ ´ | ˘ ´
  ˘ ´   | ˘ ˘ ´ |   ˘ ´ | ˘ ´
  ˘ ´   |   ˘ ´ |   ˘ ´ | ˘ ´
  ˘ ˘ ´ | ˘ ˘ ´ | ˘ ˘ ´ | ˘ ˘ ´
  ˘ ˘ ´ |   ˘ ´ |   ˘ ´ | R
    ´   |   ˘ ´ |   ´   | ˘ ´
  ˘ ˘ ´ | ˘ ˘ ´ |   ˘ ´ | R
    ˘ ´ |   ˘ ´ | ˘ ˘ ´ | ˘ ´
  ˘ ˘ ´ |   ˘ ´ | ˘ ˘ ´ | R
```

(b) The meter is clearly one with the strong syllable last: thirteen of the fourteen lines (all except line 11) begin with a weak syllable, and all fourteen end with a strong. So the meter is either iambic or anapestic. The shortest line, 11, has only six syllables but four clear strong ones (*far* and *few*, each twice), and ten of the fourteen lines can be read easily with four strong syllables. So the verse is tetrameter.

808

Three of the lines (3, 6, and 8) are perfectly iambic (tetrameter), only one (9) perfectly anapestic (also tetrameter). Indeed, of the 51 feet, 33 are iambic, 16 anapestic, and 1 spondaic. This is a clear, two to one in fact, preponderance of iambic feet.

(c) Extra weak syllables at the beginnings of feet--that is, anapests rather than iambs.

(d) The odd--first and third--feet, but especially the first. There are 7 anapests in first feet, 3 in second, 5 in third, 1 in fourth.

10. (a) ˘ ´ | ˘ ˘ ´ | ˘ ˘ ´ | R
˘ ˘ ´ | ˘ ˘ ´ | ˘ ˘ ´ | R
˘ ˘ ´ | ˘ ˘ ´
˘ ˘ ´ | ˘ ˘ ´
˘ ˘ ´ | ˘ ˘ ´ | ˘ ˘ ´ | R

(b) Anapestic.

(c) Missing weak syllables at the beginnings of feet--that is, iambs rather than anapests. They occur in the first foot of a line. There are nine iambic feet in the four limericks, and they are all at the beginnings of lines: line 1 of A; lines 3, 4, and 5 of B; lines 1, 2, and 4 of C; and lines 1 and 2 of D.

(d) Lines 1, 2, and 5 of all four limericks are tetrameter as they stand: there is a rest in place of the fourth foot in each case. That leaves lines 3 and 4. But these are only two feet long; putting them together makes a single four-foot, i.e. tetrameter, line. The limerick form is then four lines of tetrameter, written as five:

˘ ˘ ´ | ˘ ˘ ´ | ˘ ˘ ´ | R
˘ ˘ ´ | ˘ ˘ ´ | ˘ ˘ ´ | R
˘ ˘ ´ | ˘ ˘ ´ | ˘ ˘ ´ | ˘ ˘ ´
˘ ˘ ´ | ˘ ˘ ´ | ˘ ˘ ´ | R

11. (a)
´ ˘ ˘ | ´ ˘ ˘
´ ˘ ˘ | ´ ˘ ˘
´ ˘ ˘ | ´ ˘ ˘
´ ˘ ˘ | ´
´ ˘ ˘ | ´ ˘ ˘
´ ˘ ˘ | ´ ˘ ˘
´ ˘ ˘ | ´ ˘ ˘
´ ˘ ˘ | ´

(b) Dactylic.

(c) A spondaic rather than dactylic foot. At the end of the fourth and eighth lines. Indeed, the fourth and eighth lines of all four poems end in spondees. The lines are otherwise perfectly dactylic.

(d) Two.

(e) 'Vice' has a word (*deplored*) divided between two successive lines, a practice known to modern 'free verse' but essentially never seen in tightly constructed--metrically regular and rhyming--poems like these. The other three poems all have another type of peculiar line division. They have lines ending in 'little words' that are normally pronounced in a phrase with *following* words: *and* (line 5 in 'Historical Reflections'), *the* (line 3 in 'No Foundation' and line 5 in 'High Art'), *like* (line 5 in 'No Foundation'), unstressed *his* (line 6 in 'No Foundation'), unstressed *their* (line 3 in 'High Art'). These line divisions all feel uncomfortable and peculiar. Note that all except one of the offenses in line division occur at the ends of odd lines, in particular lines 3, 5, and 7. In other words, lines 3, 5, and 7 often behave as if they formed a unit with the immediately following lines. This proposal is strengthened somewhat by the rhyme pattern, which in the written versions of the poems seems to call for rhyme between the two spondees, at the ends of lines 4 and 8. Rhymes at this distance, four lines apart, are not unknown, but are rather odd. If, however, each pair of written lines is treated as a single verse line, then the required rhyme will be between lines 2 and 4 (rather than 4 and 8), a very common every-other-line pattern (compare the refrain, lines 11-14, of 'The Jumblies' in the previous exercise). The pattern for this form is then

´ ˘ ˘ | ´ ˘ ˘ | ´ ˘ ˘ | ´ ˘ ˘
´ ˘ ˘ | ´ ˘ ˘ | ´ ˘ ˘ | ´
´ ˘ ˘ | ´ ˘ ˘ | ´ ˘ ˘ | ´ ˘ ˘
´ ˘ ˘ | ´ ˘ ˘ | ´ ˘ ˘ | ´

12. (a) ´ | ˘ ˘ ´ | ˘ ´ | ˘ ´

(or, with stress shifted to *by*: ˘ ´ | ˘ ´ | ˘ ´ | ˘ ´)

˘ ´ | ˘ ´ | ˘ ´ | R
˘ ´ | ˘ ´ | ˘ ˘ ´ | ˘ ´
˘ ´ | ˘ ´ | ˘ ´ | R

˘ ´ | ˘ ´ | ˘ ˘ ´ | ˘ ´
˘ ´ | ˘ ´ | ˘ ´ | R
˘ ´ | ˘ ´ | ˘ ´ | ˘ ´
˘ ´ | ˘ ´ | ˘ ´ | R

˘ ´ | ˘ ´ | ˘ ´ | ˘ ´
˘ ´ | ˘ ´ | ˘ ´ | R
˘ ´ | ˘ ´ | ˘ ˘ ´ | ˘ ´
˘ ´ | ˘ ´ | ˘ ´ | R

˘ ´ | ˘ ´ | ˘ ´ | ˘ ´
˘ ´ | ˘ ´ | ˘ ´ | R
˘ ´ | ˘ ´ | ˘ ˘ ´ | ˘ ´
˘ ´ | ˘ ´ | ˘ ´ | R

(b) Iambic. Each verse has four tetrameter lines, with foot 4 of the even (rhyming) lines replaced by a rest.

(c) An anapest replaces the iamb in the third foot of a line, especially line 3 (this happens three times in line 3, once in line 1).

(d) Verse: two sets of four lines of anapestic tetrameter, with the last foot of line 4 replaced by a rest (lines 1, 2 and 3 rhyme). Refrain: three lines (written as six) of anapestic tetrameter, with the first foot of each line shortened and reversed, that is, realized as a trochee or spondee (lines 1 and 3 rhyme again, and line 2 half-rhymes with them).

NOTES

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[1] A system of *quantitative accent*, in which only duration marks prominence, is logically possible, but I know of no unproblematic examples.

[2] In classical Greek metrics, a spondee is a foot consisting of *two accented* syllables, but since English verse allots one strong syllable to each foot, the term can be used for a foot of one strong syllable without any confusion.

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THE WORKSHOP METHOD: DESIGNING AND IMPLEMENTING UNDERGRADUATE LINGUISTICS COURSES

K. P. Mohanan

1. Introduction

Every teacher who takes his profession seriously asks himself how he can give a better course the next time[1]. Quite often, when reviewing what he has taught or is going to teach, he also asks himself why he is teaching what he is teaching the way he is teaching it. What follows is an attempt to share with fellow teachers of linguistics some of the answers which have emerged out of my experiments with teaching linguistics, and thinking about teaching in general. I propose what may be called the *workshop method* of teaching linguistics as an alternative to the traditional *lecture method* of teaching: the latter hands down a body of readymade knowledge to the students and teaches them *about* linguistics, making the students passive recipients of the knowledge, while the former makes the students construct the body of knowledge that the teacher wants them to learn, developing the investigative skills required for doing linguistics, in the course of acquiring this knowledge.[2] The frame of reference for the discussion in this article would be the domain of what has been called formal linguistics (phonetics, phonology, morphology, syntax, semantics), since this is the only area that I have some teaching experience in. It is my hope, however, that teachers dealing with other domains (e.g. psycholinguistics, sociolinguistics) would be able to translate the spirit of what I am saying into their frames of reference, and evaluate the proposals I make against their experience.

In order to teach a course effectively, one must begin with a clear idea of the objectives of the course, which involves spelling out the desired target, namely, what the student should know or be able to do at the end of the course. The next step is to seek the best means to achieve these objectives. In this article, therefore, I shall seek answers to the following questions:

1. a. How do we formulate the *objectives* of an undergraduate course in linguistics?
   b. How do we *design* and *implement* the course that achieves these objectives?

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[1] Parts of the material in this article were presented at talks given at the National University of Singapore, at the Central Institute of English and Foreign Languages, India, and at the Princeton Conference on Undergraduate Linguistics Education in 1987. I have benefited a great deal from the discussions that followed the talks. I have also benefited from the comments from Paul Kiparsky, Charles Ferguson, Tom Wasow, John Rickford, Makhan Lal Tickoo, Kathryn Henniss, Cheri Garcia, John Stonham, P.U. K. Warrier, and Tara Mohanan on previous drafts of this article.

[2] I was first exposed to the idea of the workshop method of teaching in a course on Linguistics and Education offered by Ken Hale and Wayne O'Neil in 1978 at MIT. I discovered how challenging and exciting teaching linguistics could become when I took this excellent course, and have since then been thinking about ways of developing and implementing the workshop idea, and conducting experiments in the courses I have been teaching. This article, therefore, may be seen as what grew out of the seed planted by the Hale-O'Neil course.

813

For an individual course to be meaningful, it must be taught as part of the program as a whole, in harmony with the rest of the courses in the program, striving towards a common goal. Hence, answering question (1a) presupposes a clear idea of the goals of the undergraduate linguistics program in general, which in its turn is dependent on our conception of what undergraduate education should be aiming at. Thus, we must begin with the most fundamental question that faces all teachers, namely, what is education?

By way of approaching the issues involved in(1a) and (1b) from the right perspective, therefore, I will begin by placing undergraduate education against the background of education in general, and then placing the undergraduate linguistics program against the background of undergraduate education, seeking answers to the following questions:

2. a.What are the goals of education (from elementary school to the university)?
   b. What are the goals of undergraduate education? How do these goals fulfill those in (2a)?
   c. What are the goals of an undergraduate linguistics program? How do these goals fulfill those in (2b)?

In what follows, I shall prepare the ground for answering questions (1a,b) by answering (2a-c) first. Though I will argue for definite positions at every stage, my main purpose is to point out the kinds of choices that teachers of linguistics have to make, and to lay out a framework within which intelligent discussion of linguistics curricula and classroom implementation becomes possible.

2. A Perspective on Linguistics and Education

2.1. Education as a Fitness Program

I would like to think of education as a *training program* that fulfills an individual function and a social function. It seeks to develop an individual's potentials to its fullest, and prepares her for a richer and more meaningful inner and outer life, and, at the same time, it prepares the individual for fulfilling his social or professional roles in the most effective fashion. A fruitful way of conceptualizing the nature of education spanning from kindergarten to the undergraduate degree is as a *fitness program* in that it aims to increase the fitness of a growing individual in various domains of life, including physical, intellectual, professional, emotional, social, cultural, aesthetic, moral, and spiritual fitness. While all these different kinds of fitness must be developed simultaneously, it would be reasonable to assume that intellectual fitness and professional fitness receive greater emphasis at the undergraduate level, while emotional fitness, moral fitness, etc. are emphasized during the early phase of education, at the kindergarten and elementary school. Intellectual fitness covers such faculties as reasoning, memory, intellectual perception and open mindedness. Professional fitness refers to the ability to function competently in one's profession,

814

whether it be as a lawyer, teacher, or business executive. Emotional fitness includes, say, the ability to be relaxed, the ability to wash away corrosive feelings such as anger, hatred and jealousy, the ability to be emotionally sensitive, and so on. Social fitness refers to the ability to live in harmony with fellow human beings. Cultural fitness refers to the acquisition of the appropriate cultural value, these values being somewhat different from culture to culture. Aesthetic fitness includes the ability to enjoy music, poetry, painting etc. and the ability to find happiness in the beauty of a passing cloud. Moral fitness covers qualities such as truthfulness, courage, integrity, etc. , and spiritual fitness refers to the individual's ability to transcend the self, that is, to strive towards a goal that lies outside the ego, and seek the inner spiritual strength to rise above the ego.

Needless to say, there are very few actual schooling programs that are successful in implementing these goals. In practice, most formal schooling (primary to undergraduate) tends to concentrate on "academic" education which would contribute to *one* of the components of what I have called intellectual fitness, and ignore facets of individual growth which are of a nonacademic nature, including significant aspects of intellectual growth itself.

As remarked earlier, intellectual and professional fitness constitutes the main goals of university education. What should go into professional fitness is for the members of each profession to decide, and therefore I will not go into this issue here, excpet for professional fitness in linguistics. I think of intellectual fitness as involving (at least) the following components:

3. a. The *knowledge* necessary to perform certain intellectual tasks.
   b. The ability to *retain* or store knowledge.
   c. The ability to *recall* or retrieve the stored knowledge when
      the occasion demands it.
   d. The ability to *apply* the knowledge to the appropriate situation.
   e. The ability to *acquire* further knowledge from other individuals.
   f. The ability to *create* or *discover* new knowledge.

(3a) refers to the *information* that every educated person ought to possess. For example, we would expect an educated person to know that not all bacteria are harmful to the human body, and why he is voting for a particular candidate, even though we would not expect every educated person to know what the last line of T. S. Eliot's *The Wasteland* refers to, or how bees locate honey. (3b) and (3c) constitute the components of an efficient *memory*. An example of (3d) would be solving the problem of a tight metal cap by heating it, applying the knowledge that things expand when heated.

(3e) and (3f) characterize the *ability to learn*, which presupposes both a *mental set* and a set of *skills*. The mental set that makes a person capable of learning would include (a) the desire to learn and the enjoyment of learning, (b) the ability to work hard in order to learn, and (c) openness of mind to new knowledge. The skills of learning include the not mutually exclusive skills of (a) observation, (b) drawing conclusions, (c) perceiving relationships which are not obvious, (d) evaluating ideas or proposals, (e) reasoning, and checking the reasoning, etc.

Most orthodox undergraduate schooling systems concentrate on a degenerate version of (3a), namely, the *information content associated with the discipline.* The attempt in such a system is to cram the student's mind with the maximum amount of information in three or four years, and to evaluate the student at the end of the program in terms of the amount of information that he has been able to store. Courses that concentrate on (3a) are typically those that rely on extensive reading lists, or thorough faithful adherence to textbooks. In order to do well in the orthodox system, it is indeed necessary for the student to develop some of the skills of acquiring knowledge ((3.e.)), retaining the knowledge till the examimations (3.b.) and recalling it in the examinations ((3.c.)). However, (3.b) and (3.c) do not constitute the goals of the orthodox systems, but are the accidental side products (not properly developed), of the demand on goal (3.a). A few enlightened systems venture to incorporate the application of knowledge ((3.d)) in the teaching, but very few programs pay serious attention to (3.e.) and (3.f). The way I see it, the main focus of the training in intellectual fitness should be on the skills of acquiring, discovering, and creating knowledge, and goals (3a-d) would naturally follow while pursuing (3e,f). Given that learning should not stop after the university degree, the best program would be one that teaches a student *how to learn* rather than one that hands down readymade knowledge.

What I am trying to contrast are two conceptions of the output of education, namely, that of a *scholar* versus that of a *researcher.* A system that emphasises (3a) produces a scholar, while one that emphasises (3e,f) produces a researcher. In practice, a good researcher is also a scholar, and good scholar is also a researcher, but it would be helpful to separate the two aspects in order to evaluate teaching systems with different emphases. In syntax, for example, a scholar who is not a researcher is one who can *explain* in detail the binding theory in GB, the formalism of f-structure and f-descriptions in LFG, the metarules in GPSG, the exact difference between relational grammar and arc pair grammar, what Postal said on page 243 of his book on raising, why Chomsky found it necessary to revise the On Binding framework, how Panini handled grammatical functions, how Zellig Harris formulated the notion of transformations, and so on, but cannot produce any work on his own, or come up with the fragment of a grammar for any language. This is an example of *sterile scholarship.* As stated above, it is impossible to be a researcher without the bare minimum of knowledge to support it, but an example of an *ignorant researcher* is one who has made contributions to the autosegmental theory but hasn't heard of Firth or prosodic phonology. Both the sterile scholar and the ignorant researcher are undesirable outcomes of an unbalanced educational system.

The conception of education as a fitness program, when applied to university education, leads to the conception of the university as a *training center,* rather than as a *disseminator of knowledge.* One can acquire the information content of "knowledge" associated with a discipline (the "knowledge that ...") by spending some time in the library if there is a good reading list, but the skills associated with a discipline (the "knowledge of how to...", including the modes of thinking associated with a discipline) are difficult to come by without help from individual supervision. If we accept this conception of education as a fitness program and the university as a training center, then a university teacher should be seen not as a *lecturer* who offers learned discourses on various topics, but as a *trainer* who offers guidance in performing certain intellectual tasks.

2.2. Professional and Educational Goals

A student who takes a *graduate* course in linguistics requires the information content and skills associated with the discipline for professional reasons: she wants to become a professional linguist, or wants to take up a language-related profession such as language pathology, language teaching, or artificial intelligence. This is not always true of a student who takes an *undergraduate* course in linguistics, since it is quite possible that the undergraduate degree will be the terminal point for the student, and that her future profession will have nothing to do with language at all. For an undergraduate program to be meaningful, therefore, its design must take into account these two types of students, and aim at both the *professional* and *educational* goals of a program. By professional goals I mean the combination and knowledge and skills necessary to function effectively as the member of a particular (set of) profession(s), and by educational goals I mean the combination of knowledge and skills necessary to function effectively as an educated individual in the human society. The fundamental issue that must be addressed when designing and implementing a course at the undergraduate level, therefore, is the simultaneous fulfillment of professional and educational goals.

Consider for a moment a student who takes a few undergraduate courses in linguistics, but ends up as a business executive. Assuming that all education is preparation for future life, and that we would not like the business executive to look back on his university education and consider it a waste of time and energy, we need to have a clear picture of the (nonprofessional) educational benefits that an individual can derive by going through a linguistics course or program. It is fairly clear that our business executive will not find useful in her life the ability to construct phonemic analyses or construct phrase structure rules. Nor will she find any occasion to draw upon her knowledge of c-command or the obligatory contour principle. We should look for the educational benefits of undergraduate linguistics courses not in the specific *content* of linguistics, but rather in the *intellectual fitness* that she acquires in the course of studying linguistics. The educational value of an undergraduate course in phonology is not that the student would end up learning phonology, but that the process of learning phonology would improve the intellectual equipment of the student. This would not be unlike identifying the value of jogging as improving physical fitness, rather than in taking someone from one place to another.

In sum, we view education as a fitness program that seeks to develop various facets of an individual that leads to a richer inner and outer life, both from the individual and the social points of view. Of these, university education focusses on intellectual fitness and professional fitness. The undergraduate education caters to both needs, and graudate education concentrates on professional goals. Thus, the challenge posed by the designing of an undergraduate program is that it should cater to the needs of those who want to continue with formal schooling (by joining a graduate program), without making the program irrelevant for those who are not going to continue.

2.3. The Goals of an Undergraduate Program in Linguistics

Given the conception of the overall educational goals and the specific professional goals an ideal undergraduate program, the goals of an undergraduate linguistics program may be identified as as follows:

4. Professional Goals
    a. training for those who want to pursue graduate studies in linguistics.
    b. training for those who want to pursue graduate studies in other language related areas such as languge teaching, language patholody, AI etc.
    c. providing an "introduction" to the discipline such that
        (i) promising students would be attracted towards linguistics, and
        (ii) students can make up their minds whether they want to go into graduate programs in linguistics or not.

5. Educational Goals
    a. training in the scientific approach to knowledge, which includes:
        openness to new knowledge, nondogmatic approach to knowledge, realization of the non-infallibility of human knowledge, etc.
    b. training in the skills of scientific understanding, which includes:
        ability to observe, to draw conclusions based on evidence, to perceive relationships which are not obvious, to evaluate ideas or proposals, to verify the validity of the reasoning an argument, etc.

Any course that covers a domain of scientific investigation should provide some of the skills in (5) to the student, and linguistics should be no exception. We should also maximally exploit those skills the teaching of which each discipline naturally lends itself to. In what follows, I shall briefly sketch what must go into a program that seeks to fulfill goal (4a), and then go on to show how such a program can be made to satisfy goals (4b-c) and (5) as well.

2.4. Professional Goals

I stated earlier that the educational value of linguistics at the undergraduate level should be sought, not in the specifics of linguistics per se, but in the skills and attitudes that students learn in the course of learning these specifics, and the degree of success in transferring these skills and attitudes to other domains of knowledge. This way of resolving the apparent conflict between professional and educational goals has profound consequences for the designing and implementation of undergraduate courses. To begin with, given that what is transferrable to other domains of intellectual activity are the *skills* of linguistic investigation, not the *information content* associated with the discipline, it follows that our focus should be on the investigative skills needed to do linguistics, the information content being restricted to the bare minimum of conceptual structures required to support the practice of investigation. In order to be a professional linguist, one requires the ability to construct and evaluate (a) grammars within a set of theoretical assumptions, and (b) theoretical assumptions within a set of assumptions associated with a given paradigm. At these levels of functioning, a linguist requires the following types of skills[3].

6. Levels of skills
   a. grammar construction and evaluation
   b. theory construction and evaluation
   c. paradigm extension and modification

7. Types of skills
   a. *Observation*: ability to look for and collect facts which are
      (i) "interesting" (i.e. have the potential to lead to a theoretical contribution), or
      (ii) relevant for a theory or proposal, at levels (6a) or (6b).
   b. *Insight*: ability to make connections, identify implications and predictions, perceive hidden patterns, etc.
   c. *Creativity*: ability to construct solutions, and arguments at levels (6a, b)
   d. *Criticism*: ability to evaluate analyses and arguments, including one's own.

By grammar construction, I refer to the ability to devise and evaluate an analysis for a body of facts (which involves (7a-d) at level (6a)), and to continue improving upon it by examining further facts and seeking better alternatives. A grammar is constructed in terms of a given theory, the data for which are grammars of natural languages. Training in theory construction involves the ability to identify the crucial assumptions behind various linguistic theories, evaluate these assumptions, and propose modificaions or innovations supported by well constructed grammars. Both grammar construction and theory construction are performed within a given paradigm that defines the intellectual climate of investigation by making assumptions about what constitutes the object of inquiry, what constitutes relevant data, what constitutes an explanation for the data, what constitutes a good argument, and so on.

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[3] As stated earlier, since my experience in teaching is limited to formal linguistics, I will base my discussion on this domain of linguistic investigation, hoping that the specialists in other fields will be able to reinterpret the spirit of what I am saying in terms of their areas. The skills listed in in (7) and (8) are the ones I have found relevant for phonology, morphology, and syntax

The abilities to construct and evaluate theories, and to extend, modify and evaluate paradigms, presuppose the ability to construct and evaluate grammars. Therefore, in an introductory course, one must begin with (6a). I suspect that (6b) belongs to the graduate program rather than an undergraduate program, and that (6c) cannot be directly taught . In what follows, therefore, I will restrict myself to objective (6a), and the different types of skills required for grammar construction ((7a-d)).

It must be pointed out that teaching grammar construction ((6a)) does not mean that it does not involve any theory at all, as grammars cannot be constructed without theories. Nor is it the case that while teaching grammar construction, the teacher employs theoretical assumptions without them to the students' attention: hidden assumptions in the practrice of grammar construction can be fatal to the growth of a student. All that the identification of (6a) as a separate level means is that the *relative emphasis* would be on the options within a given theoretical framework. The nature of the theoretical apparatus used in the construction of grammars along with the motivation for the assumptions within the theory is spelt out by the teacher wherever possible, but this aspect of the course would be relegated to the background, more or less the way morphology would be taught in a course on phonology.

3. A Course in Grammar Construction

3.1. The Lecture Method

Emphasis on the *skills* of grammar construction (as opposed to the *information* about the grammar of a language or grammars of different languages) has radical consequences for the methodology of teaching linguistics. The traditional mode of teaching undergraduate courses is the *lecture* method, the basic features of which are:

8. a. in the classroom: the teacher delivers a lecture, answering occasional
    questions from the students
  b. outside the class room: problem solving assignments or reading assignments
    to supplement the classroom activity.

When lecturing on the grammar of a language, teachers employ two alternative strategies in relating the data and the analysis of the data, which I shall refer to as the *analysis-as-fact*, and the *analysis-as-assumption*. In the analysis-as-fact mode, the teacher first presents the principles as *facts*, and then presents the data as *examples illustrating the principle*. Thus, I have observed the following strategy in many undergraduate classrooms and textbooks:

9. Sample 1

Teacher: In English, the phoneme /p/ is realized as [ph] at the beginning of a stressed syllable, and as [p] elsewhere. For example, *pit* and *repeat* are pronounced with [ph], while *spit* and *rapid* are pronounced with [p].

10. Sample 2

Teacher: In English, an NP consists of Det and N, with Det preceding N. For example, in *The boy cried*, *the boy* is an NP, in which *the* is a Det, and *boy* is an N.

It is fairly obvious that these two samples illustrate the worst method of teaching any scientific discipline, namely, the dogmatic approach which is inconsistent with the very basis of science. As a result, hypothetical constructs like phoneme, NP, and VP are acquired by the students as facts, destroying all the possibility of further modification. If a student learns that we can use the *assumption* that /m, n, ŋ/ are distinct phonemes in English *in order to account for certain facts*, he would be perfectly willing to abandon this assumption at a later point, and assume that the velar nasal is not a phoneme in English if that assumption yields better grammars. On the other hand, a student who is introduced to the /m, n, ŋ/ analysis as a fact is bewildered when he comes across the /m, n/ analysis. The bewilderment is akin to when faced with the propositions that (a) Delhi is the capital of India and (b) Delhi is the capital of Holland. If these two statements come from two different teachers, the student is forced to conclude that one of the the teachers must necessarily be either ignorant or perverse!

Though the analysis-as-fact approach is antethetical to the very spirit of scientific investigation, this appears to be the most popular mode of teaching undergraduate students in many scientific disciplines. I was taught physics in this manner when I was an undergraduate student, and constructs such as force, field, wave and particle, and various assumptions about these hypothetical entities were taught to me as facts. As a result, studying physics became as boring and hateful an activity as memorising the entries in an encyclopaedia.

In contrast to the analysis-as-fact approach, the analysis-as-assumption approach presents the constructs and principles used in linguistics as part of the set of assumptions that linguists have created in order to account for linguistic phenomena, and thereby provides the right understanding of the nature of scientific enquiry. In this approach, samples 3 and 4 would replace samples 1 and 2:

11. Sample 3

Teacher: Distributional data like [spit], [phit], [riphíit], [rǽ pid]
*[sphit], *[pit], *[ripíit], *[rǽphid] and alternation data like
rapid [rǽ pid]/*rapidity* [rəphíditi] can be accounted for if we
assume that /p/, not */ph/ is a phoneme in English, and /p/ becomes [ph]
at the beginning of a stressed syllable.

12. Sample 4

Teacher: Consider the following data: *The boy cries, I saw a boy,*
She gave the boy a book, **Boy the cries*. **I saw boy a*.
**She gave the boy book a*. We can account for facts of this kind by
assuming that (i) *a* and *the* belong to the category called det,
and *boy* and *book* belong to the category called N, and,
(ii) det precedes N in an NP ...

The advantages of this approach are immediately obvious. If what is presented to the class are assumptions, one can raise the questions *why these assumptions should be made* (motivation) and *why these, not an alternative set of assumptions, should be made* (comparison of alternatives). These two activities constitute the basis of all linguistic argumentation. For example, one can raise the question why we need the level of phonemic representation (in addition to the level of phonetic representation and distributional constraints stated on phonetic segments), and why we need to assume that certain segments are not present in the phonemic inventory (/p/, not */ph/). Couldn't we have accounted for the data in terms of distributional constraints stated on phonetic segments, without ever using the notion phoneme or phonemic representation? Again, why do we need to assume /p/ and derive [ph] from /p/ through a rule of aspiration, rather than assume /ph/ and derive [p] from /ph/ through a rule of deaspiration? Questions of this kind indicate the beginning of the *scientific* study of language that we call linguistics. These questions are the automatic consequences of the analysis-as-assumption approach, but are not meaningful in the analysis-as-fact approach.

To my mind, the best example of analysis-as-assumption approach in an introductory book is Einstein & Infeld's *Evolution of Modern Physics*. This book compares a scientist to a man looking at a clock (the internal mechanisms of which is hidden from him) and trying to guess the nature of the mechanisms on the basis of what he can observe, using the hypothetico-deductico method. Unfortunately, books of this kind hardly ever figure in conventional physics curricula.

Though the analaysis-as-assumption lecturing mode is infinitely superior to the analysis-as-fact lecturing mode, the lecturing mode itself is unsuitable in a training program that aims to develop the *skills* of investigation. A lecture can be used for *exposition*, in which difficult concepts are explained to the students (e.g. as in the exposition of the notion alienation in existential philosphy), or *demonstration*, in which the lecturer demonstrates how something is done (e.g. the demonstration of Chinese brush painting techniques), but is inadequate for the inculcation of active skills. A lecture demonstration in Chinese brushwork is indeed useful for one who wants to learn the techniques of painting, but if a series of demonstrations are all that one gets from a teacher, one is not going to acquire the skills of painting. For this, it is necessary for the student to pick up the brush and paint, with constant supervision from the teacher. For every hour spent on demonstration, there should be at least ten hours spent on the student painting and the teacher offering guidance.

The situation is no different in the teaching of the skills of grammar construction. A student learns how to swim or how to paint by doing it *in the class*, with guidance from the teacher, not simply by watching people swim or paint, listening to learned discourses on swimming or painting, or by reading scholarly works on swimming or painting. Similarly, a student learns to construct grammars by constructing grammars in the class with guidance from the teacher, not by watching the teacher construct the grammar, listening to learned discourses on grammar, or reading the books and articles in the library.

3.2. The Workshop Method

As an effective way of teaching the skills of grammar construction, I would like to recommend the use of what I call the *workshop method* of teaching linguistics, the essential idea of which is that the classroom is used as a workshop in which the students collectively build a grammar for a language with some guidance from the teacher.[4] The educational philosophy that underlies the workshop method may be stated as follows:

- Students learn better through active participation than through passive listening or reading.
- The business of a teacher is to teach the students how to acquire knowledge, not to hand down pre-packaged knowledge.
- Students acquire the skills of doing linguistics through *simulated research* in the classroom. Designing and implementing an introductory course therefore involves the design and implementation of carefully planned *tasks* the performance of which will lead to the desired information content and skills.

The most important features of the workshop method are: (a) it brings problem solving tasks into the classroom as a (partial) substitute for traditional lecturing, rather than relegating them to assignments which are supplements to lectures and reading, (b) it maximizes learning through discovery and creation on the part of the student, (c) it focuses on a large body of interacting data from a single language, rather than practising cross-word-puzzle type solutions on isolated bits of data from different languages, and (d) it attempts to build knowledge as a collective project of the class, rather than as an individual enterprise.

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[4] A department of linguistics that consistently and successfully employs the workshop method is that of University of California at Santa Cruz.

In short, the basic idea of the workshop method of teaching, as opposed to the lecture method, is that the classroom can be used as a workshop to *simulate research* in the classroom. Within this approach to teaching, the students become apprentices who create knowledge (as opposed to passive receivers of knowledge), and the teacher becomes a master craftsman who trains the apprentices (as opposed to the scholar who hands out ready made knowledge). The workshop method brings into the classroom the kinds of activities which are usually associated with assignments outside the classroom, and builds an entire course centered round the *tasks* that students perform in the class. As a result, the teacher's preparation for a course consists in designing the kinds of tasks which would provide training in the skills that the students are expected to acquire, and sequencing these tasks in the right order.

These "mini research" tasks can begin on the first day of class in an undergraduate course. For example, after making the distinction between sounds and letters in an undergraduate phonology course, I often give the students tasks like the following:

13. Sample 5

Teacher: How many of the following sound like English words, and how many don't? [blik], [flep], [spez], [psez], [gnik], [bren], [mren], [nih]

Students pick out [psez], [gnik], [mren], [nih] as "unEnglish".

14. Sample 6

Teacher: Construct a principle which will explain why novel words like [des], [leθ], [deʃ], [gis], [giθ], [giʃ] etc. are possible in English, while words like [deh] and [gih] are not.

Students typically come up something like "[h] cannot appear at the end of a word" (after some of prodding in some cases).

Teacher: Does the principle "[h] cannot occur at the end of a word" account for all the following contrasts? [miles], *[mileh], [mesti], *[mehti] . .

Students pick out the illformedness of *[mehti] as one that is not accounted for by the principle. Problem: the form does not violate the principle, and yet it is illformed.

Teacher: How would you account for *[mehti]?

Students may add the principle "[h] cannot appear before a consonant", or try to revise the earlier one into something like "[h] must be followed by a vowel", etc. , leading to further discussion.

15. Sample 7

Teacher: Take the principle "[h] must be followed by a vowel". Does it work with respect to all of the following words? [bihaind], [him], [hyuu], [hæt], [hyuumən] (Note: [y] = IPA [j])

Students pick out [hyuu] and [hyuumən] as problem cases, and explain why they are problems.

The goal of task (13) is to get the students familiar with the contrast between possible forms and impossible forms, which constitutes the data that we must account for. The goal of (14) is to provide the first taste of constructing a principle to account for the data, and revising the analysis when required by new data. (15) introduces the notion counterexample as an acceptable form predicted to be illformed by the grammar, in contrast to the situation in (11) in which an unacceptable form is not ruled out by the grammar, which is not a counterexample. Thus, these tasks of grammar construction constitute the first steps of training in observation, insight, creativity and reasoning (7a-d) needed for research in linguistics.

Similar strategies are applicable to syntax as well. Thus, the teacher can present the facts in sample (4) without giving out the solution, and extract the solution out of the students through the appropriate use of questioning strategies. Instead of giving the student the generalizations on the auxiliary system in English, the teacher may provide data like *John will write*, **John will writes*, **John will writing*, *John is writing*, **John is write*, **John is writes*, *John writes*, *John will be writing* etc. , and get the students figure out the principles which will account for the data. In order to give the students a feel for demonstrating a principle, one may require the student to demonstrate that the subject must agree with the verb. Most beginners tend to give pairs like *The boy writes* and *The boys write*, and forget that the demonstration must include **The boy write* and **The boys writes*.

These are some of the relatively simple tasks that can be used during the first week of an introductory undergraduate course. During the later stages, one can use tasks which demand greater sophistication from the students, such as those in (16) -(17):

16. The illformedness of forms like *[ŋed], *[ŋis] in English (as opposed to [med] and [mis]), can be accounted for by any of the following principles:

    a. The sound [ŋ] cannot occur in English.
    b. [ŋ] cannot be followed by a vowel.
    c. [ŋ] cannot occur at the beginning of a word.
    d. [ŋ] cannot occur at the beginning of a syllable.
    e. [ŋ] cannot occur in the onset of a syllable.

    Argue in favor of one of these principles, using your own data.

17. Check the validity of the following arguments:

a. In *Silly boys never pinch pretty girls*, *silly* and *boys* form a single construction because *silly* modifies *boys*

b. Pronouns cannot c-command their antecedents in English. In *John admires him*, *him* cannot take *John* as its antecedent. Therefore we conclude that *him* c-commands *John*.

The task in (16) involves (a) identifying the predictions made by the proposals, (b) looking for the data relevant for these predications, (c) rejecting principles which make false predictions, and (d) choosing between alternatives in terms of their ability to simplify the overall grammar. The task in (17a) requires the student to unearth hidden assumptions in an argument, and check if these assumptions are valid or not. (17b) involves paying attention to the distinction between sufficient and necessary conditions and avoiding the archetypal trap of mixing up the two, an error that is common in the work of beginners, and not uncommon even in published research. The reader is referred to appendix I for a more complex exercise.

The workshop method of teaching differs from the traditional strategy of combining lecturing in the classrooms with problem solving assignments outside the classroom in two radical ways. First, as pointed out above, skill building tasks in the workshop method are not optional supplements to be relegated to the time outside the class hours, but are an integral part of the classroom activity around which the course develops. Second, the tasks selected for this purpose are designed in such a way that the students ultimately end up constructing the *grammar* of a language, not merely solving unrelated problems from a number of languages. If one is reasonably smart, it is always possible to propose a solution to an isolated piece of data using the strategies employed in solving cross word puzzles. Constructing a grammar for a large body of data from a language requires paying attention to the interaction between different components, and involves skills of a higher order: it forces you to make the solutions in one part of the grammar consistent with those in another, it reduces your options considerably and minimizes clever footwork, and it gives you the excitement of building an intellectual object, not unlike the excitement of buiding a complex piece of scultpure. None of these is present in solving unrelated problems in assignments. The difference between the two is as vast as that between writing a number of squibs and writing a Ph.D. thesis.

3.3. Classroom Strategies in the Workshop

The lecture method is *teacher driven* in the sense that what happens in the class (as well as the overall content of the course) is determined solely by the teacher. In this mode of teaching, student participation is minimal, and is often seen as an optional extra. A lecture is the *monologue* of a teacher, the students

826

being the audience. In contrast, a workshop class is a *dialogue* between the teacher and the student, and therefore student participation is integral to the workshop method: if the students do not participate, the dialogue cannot proceed. We may therefore say that the workshop method is *student-teacher driven* in the sense that student participation is as important as the teacher's input in determining the classroom activities and the shape of the course.

The teacher's contribution in the dialogue is designed in such a way that it helps the student to discover generalizations, construct solutions, see the errors of logic, etc. Needless to say, this would be a *Socratic dialogue*, with the teacher's questions giving gentle nudges to move the student in the desired direction. Quite often, however, the student comes up with a proposal that the teacher has not anticipated, and the teacher has to deal with this proposal in the same Socractic fashion. This situation demands some amount of flexibility and resourcefulness on the part of the teacher. First, the teacher has to make a quick decision whether the student's proposal is to be accepted or not, and, if it is not, design a new exercise on the spot to make the students see the defect on their own. If, on the other hand, the students' proposal is acceptable, the teacher must incorporate it into the grammar being developed, which might change the shape of the grammar and hence the shape of the course in minor or even major ways.

In a phonology course I taught at Stanford, for example, I was planning to extract from the students the principle that [h] cannot occur at the end of a syllable. In order to do this, I asked them to construct a principle which would explain why English allows (novel) forms like [des], [def], [deθ], [deʃ], [bis], [biʃ] etc., but not *[deh], *[bih] etc. As I had anticipated, the students came up with the principle that [h] *cannot occur at the end of a word.* I agreed that their principle did account for the data I had given, but would it also account for the new set of data involving the contrast between the possible forms [deski], [defti], [deθti], [deʃpi], [misti], [miʃpi] and the impossible forms *[dehki], *[mihti]? The students saw that it didn't, because [h] did not occur word finally in these forms, and therefore did not violate their original principle. In order to account for the new data, some of the students proposed the principle that [h] *cannot occur before a consonant*. As the next step, I suggested that they construct a single principle to account for both sets of data (*[deh] and *[dehki]), instead of using two different principles.

Upto this point, everything had gone the way I had anticipated. I was hoping that the students would at this point come up with the principle that [h] *cannot occur at the end of a syllable*, and that I could follow it up with a mini-lecture on (a) accounting for data in terms of explicit principles which make predictions that match observed phenomena, (b) the need to revise the principles on the basis of new data, and (c) choosing between alternative analyses on the basis of simplicity. Unlike what I had expected, however, one student came up with the principle that [h] *must be followed by a vowel*. This principle did account for all the data on [h] so far presented to the class, and therefore I accepted it. If words like *hue* and *human* are analysed as having a consonant [j] following [h], this principle wouldn't work, so I wanted to see if the students could think of these words on their own. I asked them to check if the principle would work on the basis of other data they could think of, hoping that it would provide training in looking for relevant data. They couldn't, and therefore I gave them a list of words consisting of [benti], [skim], [hjuu], [twist] and [gres] (hiding the relevant data in the noise), and repeated my question. Immediately, they saw that [hjuu] falsified the proposal that [h] must be followed by a vowel. I used this opportunity to present the notion "counterexample". The students were asked to revise their analysis incorporating the new data, and one of them came up with the principle that [h] *cannot be preceded by a vowel*, which accounted for everything examined so far. Now was my chance to give further practice in looking for relevant data, and I asked them to check if the principle was correct by looking for counterexamples. This time, they came up with counterexamples like [bihaind] on their own. With some prodding (which involved my telling them that they might find the notion syllable useful), the students finally arrived at the principle that [h] *cannot occur at the end of the syllable*.

This time, the student who had originally proposed that [h] cannot occur before a consonant pointed out that the new principle was inadequate, since it did not explain why forms like *[dehk] and *[miht] were bad, in contrast to [desk] and [rift], and that her principle correctly accounted for it. I was overjoyed, and agreed with the student that we were in a fix. The conclusion to draw was that the principles that [h] cannot occur at the end of a syllable and [h] cannot occur before a consonant were both correct in a sense, but then we were missing some important generalization which made [h] behave in this fashion. I drew the parallel between this situation and the controversy between the conception of light as waves and the conception of waves as particles, each of which was able to account for phenomena that the other couldn't account for, and pointed out that this was an archetypal situation in any scientific investigation indicating that there was something missing. The two statements about [h] couldn't be united without using the notion coda ([h] cannot occur in the coda), but this was not possible at that point because the students had not been yet exposed to the ideas on syllable structure. Therefore we had to reserve a revised analysis of the facts of [h] for a future class.

These unexpected developments in the class suggested a parallel treatment for [ŋ]. In order to reinforce what the students had learnt in the discussion of [h], I designed an exercise on [ŋ] that essentially follows the same steps (given in (16)), but requires more initiative on the part of the students in looking for relevant data.

If dialogue of this kind is to be successful, it is important that the teacher resists the temptation to provide solutions, including solutions to the problems which accidentally surface in the class discussion, and insists on the students solving them by providing additional data or questions. It has been my experience that this takes a great deal of discipline, patience, and optimism on the part of the teacher, but ultimately it pays off. I have often had to wait in silence for five or ten minutes in the class while the students grappled with a problem. For one who is used to the lecture method, total silence in the class could be quite unnerving, because one tends to equate silence with absence of activity. This is no longer true of the workshop method.

For the student-teacher dialogue to be effective, it is also necessary for the teacher to take the students' proposals, comments, and objections seriously, and build activities around them. For this purpose. I have found it useful to write up the ideas proposed by each student on the chalk board, and invite other students to evaluate these ideas. The class progresses in terms of proposals, criticisms, counterproposals. and comparison of alternative proposals. There is no better way to teach linguistic argumentation (inventing and evaluating arguments) than to get the students argue with each other and with the teacher.

I may mention that. given the unpredictability of the student input to the dialogue. there is always the possibility that the teacher makes more errors in the class due to hasty thinking, than is likely in the lecture method. Instead of being worried about this possibility, I would like to think of these contexts in a positive light. because there is nothing as encouraging for a student to disover that teachers are not infallible, and to be able to catch the teacher on the error. The experience of the teacher making occasional errors frees the student from the fear of making errors. and brings in the realization that making mistakes is to be expected in any scientific investigation. If the teacher admits his error cheerfully and apologises. without being embarassed about it. the student also learns to do likewise.

A question that comes up at this point is: can the workshop method be employed in a large class? Wouldn't the dialogue demanded by the workshop mode of teaching demand that the number of students be small?

The answer is that it is indeed true that direct oral dialogue between the teacher and the student is possible only when the number of students in the class does not exceed. say. twenty or twenty five. When the class gets larger. the teacher has to resort to compromises such as organizing class activity in groups. or using problem sets to feed into the class activity. In a class of two hundred students that I taught in Singapore. for example. I divided the students into twenty groups. and required them to submit written answers to the weekly assignments after they discussed the assignment in their groups. Since each group submitted a common answer. going through the assignments was not very difficult. I designed the assignments in such a way that the student answers constituted at least partial solutions to the problems that I was going to tackle in the next class, or at least prepared the students for the class discussion by making them struggle with the problems. Thus. the dialogue was implemented partly by my raising the questions in the assignment, the students answering them in the written form. and my discussing their answers and proceeding further in the next class. in addition to the provision for their direct oral remarks in the class. While strategies of this kind do not yield results comparable to direct oral dialogue, they represent ways of making compromises without completely abandoning the spirit of workshop training.

Finally, I have found it quite useful to spell out, right at the beginning, what the objectives of the workshop course are, and to explain at each stage in the course what kinds of skills each exercise is expected to develop. Those students who are used to the lecture method might feel more at home with a content oriented course, at least during the initial stages, and feel quite disoriented when faced with a skill oriented university course. It takes quite some time and effort to get these students see what the aim of the enterprise is: they can't be expected to achieve the objectives of the course unless they can see clearly what they are expected to achieve.

3.4. The Place of Content in the Workshop

In the workshop method of teaching, the emphasis is on the skills that we want the students to acquire, rather than on the information content. This does not mean that the student does not acquire any information at all. or that no attention is paid to this aspect of training. Rather. information is acquired as part of the acquisition of skills, almost as an inevitable offshoot of aiming at investigative skills.

The information that we expect the students to have by the end of the course may be at the level of the grammar. as in (18). or at the level of the framework. as in (19):

18. a. [ŋ] does not occur in the onset in English.
    b. Voiceless stops are aspirated at the beginning of a stressed syllable in English.
    c. Suffixes like *-ity*. *-ic*. and *-ion* affect word stress. but affixes like *-ness*. *-hood*. and *-dom* do not.
    d. Pronouns can precede. but not c-command their antecedents in English.

19. a. Phonetic and phonemic representations
    b. Phonetic and phonemic segments
    c. Syllable. nucleus. onset, coda
    d. Distributional rules that impose conditions on phonemic representations. and structure changing rules that change phonemic to phonetic representations
    e. Word, stem. affix
    f. The notion c-command

In a grammar construction course that employs the workshop methodology, the information in (18) would be discovered/invented by the students in the process of doing the tasks that the teacher gives them. while the information in (19) would be provided by the teacher. In a sense, (19) constitutes some of the *tools of grammar construction*, and (18) constitutes some of the objects constructed with these tools.

Needless to say, the presentation of these tools that a framework provides requires the use of expository lecturing. What is important, however, is that this occasional lecturing is used very sparingly, and that the information provided by the teacher is minimal. That is to say, the teacher introduces some machinary of the theory at a stage when the students need the tool in order to handle the data that they are trying to account for. In other words, the teacher provides only that amount of conceptual structure which would support the research acivity that the students are engaged in. Information content that cannot feed into the research simulation in the workshop is systematically avoided during the initial stages.

To take an example, the notion c-command would be presented to the student only when the students are about to grapple with the problems of pronominal or bound anaphora, as a conceptual tool that will allow them to construct an analysis. In contrast, something like binding condition A in the Government binding theory would not be introduced in an introductory course in syntax, as it is most unlikely that the students of an introductory course would have sufficient mastery over the concepts of binding, government and governing category, to be able to construct analyses with these notions. Information of this kind would be reserved for an advanced or specialized course in syntax.

Even at the level of the grammar, it is not the case that every part of what is being built should be contributed solely by the students. In every grammar, there exist ideas which require flashes of imagination, and we cannot expect an average beginner to replicate the equivalents of these ideas. For example, at some point in a phonology course, the student should know about the solution to alternations like [ai]/[i] (*divine/divinity*), [ii]/[e] (*serene/serenity*) in terms of vowel shortening and diphthongization, postulating abstract representations like /diviin/ and /sereen/. We can't extract this solution from the students however hard we may try, and therefore it has to be given to them in terms of expository lecturing.

In short, what I am suggesting is that every bit of information content is carefully scanned by the teacher to check if the students can arrive at it on their own, and the teacher contributes only those bits which are (a) essential for the further development of the course, and (b) cannot be arrived at by the students on their own.

The advantages of this approach to the information content of a course are as follows:

- Information that the students themselves have discovered or created is more meaningful, and stays longer than the readymade information provided by the teacher. A student who has struggled with the data and arrived at the principle that voiceless stops in English are aspirated at the beginning of a stressed syllable is unlikely to forget it, and even if he forgets it, he can easily reconstruct it. If the principle is provided by the teacher, it is retained only till the the end of the examinations if the student has no need to use it afterwards. Even in cases where the students can't construct the solution for the data and the teacher has to hand it down, the very fact of having struggled with the data and arrived halfway through makes the principle more meaningful, and is retained longer.

- **The students know that the grammar that *they* have constructed, and all the principles in it, are subject to modification on the basis of further data. From this knowledge, it is but a small step to the realization that all grammars and linguistic theories are of the same tentative nature. There is no better way of warning the students against taking any theory as the ultimate truth in linguistics.**

- **Since the proposals that emerge out of the grammar construction course undergo constant modification, the students develop the flexibility and openness of mind needed to modify and abandon previous principles and theories.**

Many teachers realize the advantages of the workshop method, but are unwilling to try it out because they feel that it would not give them sufficient coverage of the topics. My experience has been just the opposite. During the initial stages, the workshop method results in a painfully slow pace, particularly if the students are not used to thinking actively for themselves and coming up with proposals. Once they get used to it, the pace is much faster than that of the lecture method, and the teacher ends up covering more ground (see appendix II). In a twenty five hour course on English syntax that I taught in Singapore, for example, I began with notions like noun, noun phrase, linear order, hierarchical structure etc., and was able to get the students to construct Ross's island constraints on their own before getting to the end of the course, in spite of spending a great deal of time spelling out the differences between Hallidayian syntax and generative syntax. Even the initial slowness (and anguish) would be considerably reduced if a greater number of teachers are willing to employ the workshop method.

3.5. Central Concepts Versus Mechanics of Problem Solving

In guiding students in grammar construction, I have found it useful to emphasize the nature of linguistic theories as sets of *assumptions about human linguistic systems* as distinct from sets of *tools to account for linguistic data*. One way of making sure that students don't end up with the *mechanics* of a linguistic theory (instead of the *conceptual structure* of the theory) is to delay presentation of the notation and formalism to a point when the students can see for themselves that what formalism does is embody the assumptions of a theory in a concrete and explicit fashion. When I teach introductory phonology, for example, I do not introduce the formal notation of phonological rules (the arrow, environment slash, parentheses, brackets etc.) untill the second half of the course, by which time the students have arrived at a full understanding of concepts such as structure, structure-building operations, structure-changing operations, and underlying representations. Introducing the machinery of arrows and braces to students who do not understand the motivations for underlying representations is like giving pocket calculators to children who have no understanding of arithmetic. If the students are clever, they might learn how to manipulate the tools, but we would be producing competent linguistic engineers, not researchers who can further our understanding of language. As for our educational goals, it is obvious that a preoccupation with formalism will not provide anything useful to a future nonlinguist except the ability to manipulate abstract symbols. What is more relevant for a future nonlinguist is the understanding of and the ability to manipulate concepts, and extend them beyond the domain of linguistics. One of the values of the concept of hierarchical structure in phonology at the level of the segment, syllable and foot, for example, is that the student can see with greater clarity similar patterns of organization in the universe: at the level of the atom, molecule, living cell, and living organism.

What I am driving at is that the teacher should make explicit the assumptions which are being used in the construction of grammars, justify their use, and consider alternative assumptions. Teachers who do active research in phonology often tend to take some of the fundamental assumptions for granted, and fail to raise issues like why we need underlying representations, and why we need distinct segment inventories for underlying and phonetic representations. Spelling out these basics is extremely important in introductory courses for both professional and educational reasons: it teaches the students to be critical of the hidden assumptions which are crucial for many debates in linguistics, it also teaches them to be wary of hidden assumptions in any domain of intellectual activity.

3.6. The Place of Surveys in the Training Program

To do intelligent research on language, it is necessary for the future linguist to acquire the right "perspective" on issues in linguistics, both from a historical point of view, and from a contemporary point of view. Thus, we agree that a linguist who has a sense of history, that is, one who is aware of our indebtedness to classical phonemics without forgetting the mistakes that our predecessors made, is able to identify in current syntax the inverted reappearance of some of the generative semantics solutions, and is sensitive to the archetypal issues in linguistics appearing in the cycles of history, can do linguistics more insightfully than one who has never heard about Pike or Halliday. A linguist would also have great advantage if she is aware of the kinds of issues and solutions that permeate the contemporary scene, and is able to separate the conceptual differences between the various linguistic theories from the mechanics of their implementation and formalism. How and when can we develope in our students the right perspective on the linguistics of our predecessors and contemporaries?

The answer to the first question, I think, would be to introduce brief *surveys*, both as a part of a non-survey course and as a fullfledged survey course, on the current linguistic scene, as well as on the linguistics of the past. These courses should be designed with two clear purposes in mind. First, they should help the student to see, as far as possible on his own, the strengths and weaknesses of various alternative and complementary approaches to the study of language. The central question should be, "What can I learn from their achievements and their mistakes?". Second, the surveys should focus on the evolution and diversification of the *conceptual issues* and enable the students to see the conceptual issues of current linguistic research, often obscured by the mechanics of implementation and multiplicity of near notational variants that look totally dissimilar.

By way of answering the second question, namely, at what point the surveys should be introduced, let us remind ourselves that the perspective on contemporary linguistics and the linguistics of the past is needed only for those who want to become professional linguists, and would be irrelevant for the others. It would be advisable, therefore, to reserve this perspective for a stage when the students have decided whether they want to join the graduate program in linguistics or not. This would mean that brief surveys can be part of a regular course (e.g. a two week survey of the developments from Syntactic Structures to REST in a course in syntax) only at an advanced level, and fulfledged surveys should be made available only to those who are going to join the graduate program in linguistics, say, during the third year of the program.

There is yet another reason for reserving surveys to the later stages of a program. In order to have full benefit of a survey, it is essential that the student be able to relate the issues being discussed to her nucleus of active knowledge built through first hand research experience. A discussion of the kinds of problems that classical phonemicists were struggling with, what determined the kinds of solutions they adopted etc. would make more sense to a student if she has already actively struggled with data and tried to construct and evaluate phonological analyses. Without this ability, all that the student can hope to do is accept blindly whatever the teacher has been saying or whatever is printed in a book, without being able to evaluate these statements, or even understand their true meaning. Courses on grammar construction, therefore, are prerequisites to any kind of survey.

If what I have said is on the right track, it would be disastrous to combine historical surveys with introductory courses. I have seen, for example, several phonology courses in which the teacher introduces the students to phonology through the principles of classical phonemics, and after an exercise session involving minimal pairs and complementary distribution for several weeks, decides to abandon the theory in favour of, say, an SPE type theory. Curiously enough, it is only in linguistics that teachers are perfectly willing to teach a theory which they know for certain to be false. Imagine what would happen if physicists followed suit, and developed introductory physics courses that began with Aristotelean physics, and reached Galileo by the end of the course, reserving modern physics to advanced courses!

3.7. Relation between State of the Art and Introductory Courses

Similar observations apply to bringing in the "latest" ideas in the field when students have not mastered the fundamental ideas yet. For example, I would consider the first step in an introductory course in phonology to be to convey the following insights:

- Even though actual speech does not exhibit discrete segments, we need to postulate abstract representations using *segments* in order to account for the regularities in speech

- In order to account for regularities in the segment inventory of natural languages and the way segments form groups, we need to assume that segments are composed of atomic properties called *features*: thus, segments have an internal *structure*

- In order to account for the distribution of segments in words and morphemes, we also need to assume that segments group themselves into higher level structures called *syllables*.

- Thus, there are at least two *levels* of phonological organization, namely, the organization of features into segments, and the organization of segments into syllables.

A great deal of activity is required on the part of the student to internalize the meaning of these statements in such a way that they become part of his *experience*. If the class has not reached this stage, it would be a serious mistake to introduce the students to the theories of feature geometry or extrametricality. Bringing the students to current research is not handing down the latest *technology* available in the market, but taking them to a point from where they can make sense of the current *conceptions* of linguistic organization, and share our *insights*. The danger of going too quickly to current research is that it might force the students to pick out the technological tools without comprehending the insights behind the tools.

I am not suggesting that we can ignore current research when teaching an introductory course, and start with, say, classical phonemics. What I am pleading for is a tempering of current ideas and theoretical apparatus with pedagogical wisdom, which may demand a distillation of the core of current insights without burdening the students with details of the technology, even if this leads to a degree of distortion due to oversimplification. The workshop method is particularly suited for this purposes because it harmonizes the teacher's and the students' pace, thereby ensuring that the concepts and insights are well established in the course of the simulated research in the class room.

3.8. Workshop and Reading

As pointed out earlier, most conventional university curricula are geared towards scholarship, not training in knowledge creation. The catchwords of the traditional attitude are *familiarity with the literature* and *critical understanding* of the concepts or theories that others have proposed. The general assumption seems to be that practice in research skills cannot begin until the student has read the relevant literature. This assumption has two unfortunate results. First, since the literature on any field continues growing faster than one can read, no one can ever hope to read all the "relevant" literature, which means that the students never get to do any research. Second, the overemphasis on reading destroys all the creative and exploratory urges, so that when the students are forced to do research, as in a Ph.D. program, they have already become incapable of creativity.

It is indeed true that actual research cannot begin until the researcher is familiar with the literature in the field, but it is not true that practice in research skills through *simulated research* needs to be delayed until the student has mastered the literature. Thus, problems which are used as tasks to train undergraduate students may already have been solved in the literature, and therefore do not constitute actual research. As simulated research, however, they provide the necessary training in research skills.

There are two reasons why reading the literature should be delayed until the students have acquired the basic research skills. First, meaningful reading cannot begin until the student has developed some research skills, and his research interests act as the nucleus around which the knowledge gathered from reading can form patterns. In other words, we should be aiming at active *creative understanding*, not merely the passive *critical understanding* of the literature. Second, if *critical understanding* implies the ability to *evaluate* what is presented, and accept or reject it on the basis of the evaluation, then true critical understanding in formal linguistics presupposes the kinds of skills that a course in grammar construction seeks to develop. In order to critically evaluate an idea, one should be able to (a) deduce the predictions it makes, (b) test these predictions against a body of data, (c) compare the idea with alternative ideas, etc. These are precisely the skills that the workshop method focusses on, by providing training in grammar construction. If intelligent reading involves an active process of evaluation, then it cannot begin until a nucleus of grammar construction skills have been established first.

Given this prespective, it follows that it is not sufficient in a training program to give the students a lengthy reading list and expect them to develop the ability to read intelligently by simply plodding through all the reading material. Typically, those teachers who specialize in lengthy reading lists sprinkle the reading material with their comments on the articles/books in the form of marginalia, hoping that this may teach the students to be "critical". Such random "critical comments" can hardly provide any skills of critical evaluation. Instead, what we need is a course that provides training in reading skills, *after the students have acquired grammar construction skills*. In such a course, training in reading can be provided by designing specific *exercises in reading* accompanying each item that the students read. These tasks may include identifying the issues addressed by the author, translating the issues stated by the author into some other framework or some other approach, checking the logic of argumentation, unearthing and evaluating the author's hidden assumptions, checking the data, deducing the predictions of the author's proposals (sometimes unnoticed by the author), comparing the author's proposals with alternative proposals, etc. Training in these components of reading skills can hardly be achieved by lecturing to the students and making them read all the "relevant material". What is needed, instead, is a workshop course on reading skills.

4. Workshop for Nonlinguists

4.1. Other Professional Goals

Having argued at length for the use of the workshop method of teaching linguistics in order to train those students who want to pursue graduate studies in linguistics (goal (4a)), it is now necessary to examine the relevance of the workshop method for other types of goals (4b-c) and (5). Take the case of students who would be joining language related graduate programs (4b). In order to design a good course for these students, it is necessary first of all to ascertain their *needs*. For example, how much of linguistics, and what kind of linguistics, does someone specializing in language teaching or speech patholody require? In order to answer this question the linguist and the language teaching specialist or the speech pathologist should consult each other fairly closely, and the course taught by the linguist should require constant monitoring by the outside specialist. Even after such close cooperation, answering this question is extremely difficult. I happen to have some training in the methodology of language teaching, but I see no straightforward ways of answering the question how much linguistics and what kind of linguistics a language teacher needs.

In the absence of a clear idea of the needs of the consumer, all that we can do is to abandon attempts at tailoring courses to the specific needs of the consumer, offer a general course, and hope that the content and skills taught in the course would turn out to be useful to these students. If so, the workshop method works as well as the traditional lecture method for most needs, and much better for some of them. One of the demands that students of other graduate programs have is *literacy in linguistics*, by which I mean the familiarity with the basic concepts and terminology in linguistics such that they can read the articles and books in their field without getting confused about references to unfamiliar linguistics concepts. Since the workshop method can cover as much content as the lecture method, it will satisfy the literacy demand, but if the consumer is after a quick and painless acquintance with the terminology and concepts and does not demand active understanding, it would be better to offer a *survey* course using the expository lecture method. Needless to say, such a course would be inappropriate for those who want to specialize in linguistics or are looking for investigative skills.

Another aspect of training geared towards (4b) is *application* which implies that the teacher must provide those skills and concepts in linguistics which are applicable in the students' field, just as physics is applicable in engineering. The application of linguisitics to related disciplines can be minimal, as in the case of language teaching, or extensive, as in the case of artificial intelligence. I would therefore recommend a general introductory course that provides the bare minimum of concepts in a course meant for everyone, with specialized topics and areas being reserved for advanced optional courses.

I am not quite sure that the use of the workshop method has any dramatic advantages for literacy and application (goal (4b)), but it has been my experience that this method is unparallelled in attracting students to linguistics (goal (4c)). There is nothing as satisfying as being able to create knowledge, and the students who have tasted the excitement of constructing a grammar in the classroom generally get addicted to the activity. Students find it appealing for two reasons: (a) it is far preferrable to *do* something in the class than *listen* passively to the teacher, (b) it is extremely ego satisfying to have one's proposal accepted by the teacher and be made part of the grammar being built in the class.

4.2. Educational Goals

4.2.1. Workshop and Intellectual Skills

I now turn to the advantages of the workshop method for those students who are not going into professions that require any knowledge of linguistics (goal 5). As stated earlier, the specific *content* of linguistics, such as what is listed in (18) and (19) will be of no use to someone who is going to end up as an economist or a senator. We must, therefore, look elsewhere for the justification of having put them through a linguistics course. The benefits lie in the general strengthening of the intellectual equipment and ability to learn.

For a future economist or business executive, taking a course in linguistics should be like going through an intellectual jogging program. For this purpose, the workshop method is best, for its goals are clearly fixed on mental skills such as reasoning, observation, insight, critical evaluation, and creation of ideas ((7a-d)), emphasising the ability to learn ((3e,f)) rather than the ability to remember ((3b,c)) or the product of learning ((3a)).

Each discipline tends to employ certain modes of thinking in preference to others, and one of the advantages of taking acadmic courses in disciplines unrelated to one's profession should be the enrichment of one's thinking repertorie. Formal linguistics, for example, typically makes use of an abstract deductive reasoning not frequently found in history or art criticism, and therefore taking courses in history and linguistics should in principle activate different dimensions of the intellectual equipment. In formal linguistics, "understanding phenomena" is equated with "being able to make correct deterministic predictions of the phenomena". In contrast, understanding does not necessarily require deterministic predictions of phenomena in social sciences. Therefore taking courses in formal linguistics should give the students a feel for the mode of understanding based on deterministic predictions.

838

More important than these specific skills, the training involved in the workshop method teaches the students the essentials of the rational mode of inquiry that we call science. In a sense, linguistics enjoys a unique status among all sciences because (a) its data is easily within the reach of everyone, and (b) there are many unexplored languages and unexplored areas in well documented languages which even beginners can investigate. As a result, a bright student with some luck can write a publishable squib after a year's training in linguistics, which is extremely difficult in any other science. Thus, a student can participate in research activities in linguistics right from the very beginning, even in an undergraduate course, and gain first hand experience in the methods of scientific investigation. The workshop method of teaching maximally exploits this advantage that linguistics enjoys over other disciplines.

As part of this training, students also learn to distinguish facts from assumptions, and dogma from assumptions supported by evidence. The essence of the workshop method is that the students create the assumptions needed to account for the facts and provide a rational defense of these assumptions. This training gives them insight into the true nature of hypothetical entities like noun phrase, phoneme and syllable. From this understanding, it is easy to see how entities like force, field, etc, are also assumed entities, not physical entities, and Darwin's theory of gradual evolution and survival of the fittest is also a man-made idea which is close to having become a dogma. The ability to distinguish facts from assumptions and the ability to evaluate the evidence presented in favour of assumptions is what distinguishes an educated mind from an uneducated one. In actual life, many of us behave like uneducated people when we accept statements made by "authorities", which is what happens when we stop eating food that contains coconut because it contains cholesterol, without knowing exactly what cholesterol is, and without finding out what the evidence is for saying that cholesterol is harmful to health. Hopefully, training in linguistics, which involves a great deal of activity in producing evidence in favour of or against assumptions, would minimise this kind of acceptance of the popular dogma (even when it comes from science), or at least make us aware of the fact that we are accepting a statement as dogma because we do not have the time or the training to seek evidence for it.

If we accept the position that those who are not going to pursue language related professions would find the value of linguistics courses in the training that it provides in the modes of reasoning, insight, creation of ideas, critical faculty, and powers of observation, then undergraduate linguistics courses must be designed and implemented in such a way that the training program maximizes these values, while simultaneously catering to the needs of future linguists and future "applied" linguists. This can be done by designing the objectives of a course at different "levels", and designing and implementing the tasks of the workshop in such a way that they satisfy the objectives at each level. For example, the lowest level objectives of a course in the phonetics and phonology of English would require that the students at the end of the course be familiar with some of the *facts* of the phonetics and phonology of English at the level of *English grammar*, such as: the first segment in *zoo* is a voiced alveolar fricative, voiceless stops are aspirated at the beginning of a stressed syllable in English, the velar nasal does not occur in an onset in English, *-ion* and *-ic* are suffixes that affect stress while *-ness* and *-hood* are not, in most compounds the primary stress is on the first member, and so on. Knowledge of this kind would come in handy for those who are looking for a description of English. In the workshop method, this description is arrived at by the students themselves, using the tools that the teacher has provided, and therefore the students also gain some understanding of the *theory* (the second level) and *paradigm* (third level) that provides these tools, by practicing the *skills of handling the tools of grammar construction*. Thus, in addition to learning something about English phonology, the students also learn, at the level of the theory, notions like representation of speech in terms of segments, syllable structure, phonetic and phonemic levels of representation, distributional restrictions vs rules that change phonemic representations to phonetic representations, rule ordering, etc.. They also learn the rationale behind the use of these tools, namely, why we need the notion "segment", mechanisms to handle distributional restrictions, the additional complexity of phonemic representations in addition to phonetic representations and distributional rules, to rule ordering, and so on (see appendix II).

By using this conceptual apparatus in the construction of a grammar, the students of a workshop course learn how to record facts of pronunciation by listening carefully, how to collect data by eliciting judgements, using play languages or other techniques, how to construct solutions using distributional restrictions of various kinds, phonemic inventories, and structure changing rules, how to provide arguments in support of their proposals, how to check the predictions of a proposal, and so on. Training in these skills constitute the focus of the workshop method.

During this training, the students also imbibe certain elements of the paradigm. Thus, in a course that teaches grammar construction within the theories of generative phonology, they learn to recognize the implications of accepting, as the object of inquiry, the language faculty that constitutes a subpart of the individual mind (as opposed to, say, language as a social entity). They understand why data from play languages, speech errors, speech recognition, versification etc. become relevant for the investigation of this object, and why a grammar must be shown to be "learnable", and why explanation in this paradigm is "acquisition based". What is unconsciously imbibed in this manner can be easily made conscious if the teacher spells out some of the issues using the expository lecturing mode.

An indirect result of all this is that the student gains some understanding of the rational mode of inquiry in general. The results of the intellectual activity that involves the use of the scientific approach, critical faculty, observation, creative faculty and insight in the domain of linguistic investigtion would also (hopefully) be transferred to other domains of life. The way I see it, this hope of transfer constitutes the sole justification for teaching linguistics to students who are not going to choose language related professions.

810

As a concrete example of this idea of designing a course in terms of concentric circles of objectives, consider the circles of objectives satisfied by the investigation of the aspiration of voiceless stops in English:

- circle 1: The student learns certain facts related to aspirated and unaspirated stops in English.

- circle 2: The student arrives at an analysis for these facts.

- circle 3: In the course of arriving at 2, the student learns how to construct a grammar within a given theory, which involves: accounting for facts by making certain proposals, checking to see if the proposals do indeed account for the facts, evaluating alternative proposals, etc.

- circle 4: Since the theoretical equipment for grammar construction is built up step by step, the student also learns to build phonological theories by putting together individual assumptions which are consistent with each other. In an introductory course, these involve assumptions about features, segments, syllables, phonetic representations, phonemic representations, structure, structure-building rules, structure-changing rules, etc.. They become aware of the need to validate each theoretical entity and assumption, and learn how to take apart the entities and assumptions that go into the making of a theory that they come across.

- circle 5: The student imbibes certain elements of the generative paradigm in the course of going through 3 and 4. In particular, she learns how the assumption that the object of inquiry in linguistic theroy is a mental entity determines the kind of data we are committed to account for, and she becomes familiar with the kinds of arguments we use to validate our proposals.

- circle 6. In attempting to improve our understanding in one domain, the students imbibe the general principles of scientific investigation and the scientific approach to knowledge: facts vs. assumptions, assumptions stated as dogma vs. those supported by evidence, the evidence for particular assumptions, the noninfallibity of science, the need for constant modification of human knowledge, etc.

The assumption implicit in the above discussion is that intellectual skills are transferrable across domains. Someone who has acquired the skills of doing phonology (or some other branch of linguistics) is better equipped to face the tasks involved in linguistics in general, and someone who has acquired the skills of doing linguistics is better equipped to face the tasks that demand scientific thinking. Hence, satisfaction of a narrow circle of *discipline-bound* professional objectives can be exploited to lead to the satisfaction of the wider circle of *general* educational objectives. If we accept this conception of undergraduate education, our task is to design courses and programs that contribute to all these circles at the same time. For this goal to be fulfilled, it is equally important to make the students conscious, at every stage, of what they are going to learn and what they have learned in each of these widening circles.

4.2.2. Workshop and Introducion to Language

It may be pointed out that, in addition to the intellectual skills mentioned above, one should also include, as part of the educational goals of an undergraduate curriculum, some of the fundamental notions and attitudes towards language. This would constitute the bare minimum of information which every educated person ought to have in order to function intelligently (goal (3a)). Thus, even though it is not necessary for every educated person to know the formal statement of the law of gravity or the fact that certain kinds of newts regenerate surgically removed lenses of the eye, it would be a serious disadvantage not to know that things expand when heated, or that the earth goes around the sun. Language being intimately tied up with the daily life of all human beings in all kinds of ways, it is indeed advantageous for everyone to have some information about this entity. Thus, among the educationary goals of the undergraduate linguistics curriculum, one may include knowledge of the following kind: notions of correctness and acceptability; the idea that languages change; language, dialects and registers; sounds and letters; the idea that no language is inherently superior or inferior; language and animal communication; descriptive and prescriptive grammar.

To put it negatively, one of the goals of this component of undergraduate linguistics programs would be to expose the popular myths about language. Not infrequently, for example, one comes across statements and questions like: "We must keep the purity of our language by eliminating all foreign elements from it"; "The speakers of English in America do not know how to speak English correctly";"The true meaning of the word X is as Shakespeare used it, people have been misusing this word during the recent years"; "Did English come from German or German come from English?"; "Japanese doesn't have any grammar". The ideas that underlie statements and questions of this kind are as unworthy of an educated person as the idea that the earth is flat, or that women have fewer teeth than men.

Observe that many of these are not part of what one might call technical *linguistics* as such, but are notions about *language* which constitute the prerequisites for doing linguistics. It is not necessary for an educated person to know what phonemes and allophones are, or what the distinction between semantics and pragmatics is, but it is necessary for him to know that "correctness" in language is a matter of convention and social prestige. The place for acquainting laymen to these concepts would be a course that provides a general introduction to language or *what every educated person should know about language*. Given that the goal of such a course is to inculcate the right attitudes to language, it would be advisable to extend the spirit of the workshop method to this course as well. That is to say, instead of *telling* the students about dialects and registers, or about correctness, it would be better to design tasks and ask questions in such a way that the students would be led to the right attitudes and conclusions on their own.

4.2.3. Workshop and Introduction to Linguistics

As stated above, it is important to distinguish between the information content of an introduction to *language* and that of an introduction to *linguistics*: the former, but not the latter, serves an important educational goal. A student who goes through a traditional introduction to linguistics gets a birds-eye view of the various branches of linguistics, and the basic concepts in each branch. Thus, as part of the phonology module, the student learns the distinction between phonetic and phonemic representations, and notions like complementary distribution and contrastive distribution. In morphology, the students learn notions like stem, affix, derivation and compounding, and learns to analyse the morphological structure of words. The teaching progresses in this fashion, until the teacher feels satisfied that the student has acquired an overall view of the whole discipline. While such a birds-eye view may turn out to be useful for those students who are going to specialize in language studies, I see no reason why the others should be burdened with information about linguistics which is of a technical nature.

A probable argument for offering an introduction to linguistics (as opposed to an intoduction to language) might be that it serves a professional goal, if not an educational goal. Thus, undergraduate students need to know something about linguistics in order to decide whether they should specialize in this field or not. (goal 4c). This goal, however, is better served by giving the students a *feel* for the kinds of things that we *do* in linguistics, rather than giving them an *overview* of the *basic concepts* in each branch of linguistics. Thus, instead of making sure that the students know the concepts phoneme, allophone, phonetic representation and phonemic representation, it would be more profitable to make sure that the students have some understanding of how to construct a phonological generalization, and how we choose between phonological principles. If we adopt this policy, the students may not end up with the basic concepts in linguistics, but they will definitely leave the course with some *first hand experience* of doing linguistics in different branches. Once again, the workshop mode is undoubtedly the best for providing this experience.

5. Summary

The central theme of this article has been the distinction between the content and the skills associated with a discipline, and the need to devise appropriate strategies for the teaching of the skills. The lecture mode, which is appropriate for exposition and demonstration, is inappropriate for the teaching of skills. In contrast, the workshop mode is ideally suited for this purpose.

The approach to teaching that I have advocated may be described as *task based* in the sense that students develop the skills we want them to acquire by accomplishing tasks which demand the use of these skills. Such tasks are usually relegated to occasional assignments in the traditional courses that employ the lecturing mode. The central point made in this article is a plea to bring these tasks to the classroom itself. The essential feature of the workshop mode of is that in this mode of teaching, skill inculcating tasks constitute the focus of classroom activity.

The best example of the task based workshop approach is a grammar construction course in which the students build the description of a language as a collective enterprise in the classroom, under the teacher's supervision. Other examples would include workshops on framework construction and/or evaluation, workshops to teach the field methods skills, workshops to teach reading skills, and workshops to teach library skills.

I have tried to argue, in this article, that the skills of grammar construction should form the first target to be achieved in an undergraduate formal linguistics program, since the ability to construct and evaluate analyses for given sets of facts constitutes the prerequisite for other types of skills, such as the ability to construct and evaluate the assumptions that go into linguistic theories, the ability to read intelligently and so on.

Another important point argued for in this article is the shift of focus from content to skills. This shift has the following consequences:

- A great deal of the content is discovered or invented by the students on their own, as a product of the tasks performed in the class. Only those aspects of content which the students couldn't have arrived at on their own are provided by the teacher.

- During the initial stages, only that amount of content strictly needed for the exercise of the skills is presented by the teacher, and only at a stage when the task in question demands it. (e.g. the notion c-command is presented only when the students need it in the solution to the problems in pronominal anaphora.)

- Content not directly involved in the performance of the tasks but is nevertheless necessary for the intelligent pursuit of knowledge in linguistics (e.g. historical perspective), is reserved for second year or third year courses for future linguists, by which time the students would have acquired the necessary investigative skills and developed a nucleus of first hand research.

The shift of focus from content to skills. leads to more meaningful courses for the students who want to become linguists or choose language related professions. It also allows for the designing and teaching linguistics courses in such a way that those students whose future professions do not require any background in language studies also derive some benefit from the courses. For the latter group, what is of ultimate value in a set of linguistics courses would not be the specific content of linguistics, but the modes of thinking that they learn in these courses, extendable to domains outside linguistics. Thus, the task based workshop mode of teaching that shifts the focus from content to skills allows us to satisfy both the educational and professional goals of teaching at the same time.

Appendix I
A Sample Exercise

Given below is a sample of a class task I used towards the end of a thirty hour introductory course in phonetics and phonology. It was intended to teach the students to be skeptical of analyses in which the same stipulation has to be duplicated a number of times in different parts of the grammar, and to look for an alternative analysis that unites the different stipulations into a single one. The facts are weaved around the treatment of the second segment in words like *cute*, *music* and *hume*, namely, the segment generally transcribed as [j] (=[y]). The issue at stake is: is this [j] part of the onset of the syllable ([kj -uut]), or is it part of the rime ([k - juut])? The latter analysis yields a simpler grammar, though the students were not aware of such a possibility during the first stage of the task.

Status of [C + j] in English

Part I: Internal Evidence

Propose an analysis for the following facts.

item 1:

a. [kwik], [kwiin], [kwest], [kwout], [kwæ k], [kwɔ m], [kjuut]
b. *[kjik], *[kjiin], *[kjest], *[kjout], *[kjæ k], *[kjɔ m]
c. [jiist], [jes], [jouk], [jæ p], [juus]

item 2:

a. [fret], [θret], [slik], [swet], [θwait]
b. *[vret], *[ðret], *[zlik], *[zwet], *[ðwait]
c. [fjuu], [vjuu], (and [zjuuz], [sjuu] in British English)

item 3: as single morphemes.

a. [rift], [lisp], [risk]
b. *[rivd], *[lizb], *[rizg]

item 4:

a. *[mret], *[mlet], *[mwet], *[nlet], *[nwet], *[lwet], *[lret], *[rwet]
*[hret], *[hlet], *[hwet]
b. [mjuuzik], [hjuu] ([njuud], [ljuuk] in British English)

item 5

a. *[ʃled], *[ʃwed], *[tʃ led], *[dʒled], *[ʒled], *[ʒwed]
b. [ʃred], but *[sred] ([sled], [swet], [sped], [sket]...)
c. as single morphemes *[riʃt], *[riʒd], *[ritʃ t], *[ridʒd]

Part II: External Evidence 1

Constuct analyses for the behaviour of group A and group B speakers, and show how the analysis for each group affects your analysis in part I.

Group A Speakers find that

a. the following pairs of words rhyme:

sit/bit, met/get, lisp/crisp, fled/bed, little/brittle, backs/tax, meeting/seating, twist/kissed, speak/leak, splash/hash, swift/rift, cute/mute, repeat/seat

b. the following pairs do not rhyme:

*sit/bet, *sit/sick, *sit/bits, *sit/little, *backs/track, *backs/backed, *cute/hoot, *meeting/seat

c. the following pairs alliterate:

sit/send, slate/slack, brain/brew, splash/spleen, fry/frog, twist/twine, queen/quote, cute/come, cute/cube

d. the following pairs do not allterate:

*sit/lit, *sit/bet, *sit/ben, *slate/lord, *slate/send, *splash/sound, *splash/speak, *splash/slide, *twist/wed, *twist/top, *cry/king

Group B Speakers find that

e. the following pairs of words rhyme:

sit/bit, met/get, lisp/crisp, fled/bed, little/brittle, backs/tax, meeting/seating, twist/kissed, speak/leak, splash/hash, swift/rift, cute/mute, repeat/seat, cute/hoot

f. the following pairs do not rhyme:

*sit/bet, *sit/sick, *sit/bits, *sit/little, *backs/track, *backs/backed, *meeting/seat

g. the following pairs alliterate:

sit/send, slate/slack, brain/brew, splash/spleen, fry/frog, twist/twine, queen/quote, cute/cube

h. the following pairs do not allterate:

*sit/lit, *sit/bet, *sit/ben, *slate/lord, *slate/send, *splash/sound, *splash/speak, *splash/slide, *twist/wed, *twist/top, *cry/king *cute/come

External Evidence 2

Check the validity of the following argument:

i. Leaving aside *cute/come* for the moment,
we can account for the data in (g, h) above by assuming the following
principle: *Two syllables alliterate if and only if their onsets are identical.*

ii. If the onset of *cute* is /kj/ and that of *come* is /k/, by principle I,
they should not alliterate.

iii. *cute* and *come* do not alliterate, as given in (h).

iv. By (ii) and (iii), we conclude that the onset of *cute* is /kj/.

External Evidence 3

Design a play language, provide the teaching sample and test sample in order
to check if the [j] that has been analysed as **Cj** as in *cute*
belongs to the onset or not.

As stated earlier, upto this point of the course, the students had been working with the assumption that *cute*, *music* etc. have two segments in their onsets (/kj/, /mj/). The alternative analysis, namely, that of analysing them as single segment onsets, and treating [j] as being inserted, or as being part of the rime, had not been discussed. The first step was to get the students examine the data under external evidence carefully, and extract principles equivalent to the following, by asking questions, presenting more data and so on, based on the branching onset analysis of /Cj/. The students came up with the following:

i. *If* /j/ *forms a cluster in an onset*, the following vowel must be /u(u)/ (item 1).

ii. A [-sonorant, +voiced, −continuant] segment cannot be a member of a cluster (in the onset or coda) within a single morpheme, *unless the other member is* /j/ (items 2, 3)

iii. [+sonorant] sounds cannot be the first segment of an onset cluster, *unless the second member is* /j/) (item 4).

iv. *Except for* /j/, a [-back, −high] segment cannot be a member of a a cluster (in the onset or coda) within the same morpheme (item 5) (/sr/ → [ʃr])

The second part of the task was pointing the students' attention to the ad-hocness of the stipulation on /j/, given in italics. The analysis given above *describes* the facts, but does it *explain* why /j/ behaves in this curious way in so many different contexts?

Having focussed their attention on the problem, I presented the possiblity of assuming that *quit* and *cute* have different syllable structures, namely, /kw it/ in which /kw/ is two consonant onset, and /k iuu/ in which /k/ is a single consonant onset. Assuming, for predagogical reasons, that /iuu/ is a nucleus, this would mean that we simply add this nucleus structure to the existing inventory of syllable nucleus in English, namely, /(i)i/, /(u)u/, /ai/, /ei/, /ou/ etc. , as opposed to */ie/, */uo/, */ue/, */ia / etc. Once this possibility was presented, the following alternative analysis was extracted from the students:

v. A [-back, +high] segment cannot be a member of a cluser (items 1, 5) within the same morpheme.

vi. A [-sonorant, +voice, +continuant] segment cannot be a member of a cluster within the same morpheme (items 2, 3)

vii. A [+sonorant] segment cannot be the first member of a cluster (item 4)

In addition to the fact that the second analysis requires only three principles as opposed to four, the strange stipulations on /j/ have disappeared in the latter, as a result of treating /iu(u)/ as the nucleus.

The goal of part II of the exercise is to give the students some feel for the kinds of predictions that the /C iuu/ analysis yields in the domain of "external evidence". The presence of group A speakers supports, and that of group B speakers goes against, the /C iuu/ analysis.

Appendix II
A Sample Syllabus

As indicated in 4.2., the syllabus for a workshop course should be designed at different levels of abstractness, the most important of which are grammar, theory, and the strategies and assumptions of the research paradigm. What follows is a sample of a syllabus I used for a thirty hour undergraduate course in phonetics and phonology:

Level I: English Grammar

1. Dictionary symbols for speech sounds in English
2. Description of the production of speech sounds in English
3. Classification of speech sounds in English
   a. Distinctive Feature classification
   b. IPA classification
4. Generalizations on the segment inventory in English
5. Syllable structure in English
6. Phonogical alternations in English:
   a. Aspiration
   b. Flapping in American English
   c. Clear and dark l in British English
   d. Vowel length conditioned by voicing
   e. r deletion in British English
   f. g/b deletion
   g. Past tense, present tense poss plural
7. Elements of English Morphology
   a. morpheme, stem, affix
   b. compounding and affixation
   c. inflection and derivation
   d. two classes of derivational affixes

8. Complex Treatments
   a. The velar nasal
   b. Plural present tense genetive and past tense
   c. Clusters with j .

Level II: Phonetics and Phonological Theory

1. Distinction between sounds and letters
2. Phonetic Notation (level I. 1)
3. Articulatory phonetics(level I. 2)
4. Classification of segments (level I. 3)
   a. Distinctive features
   b. Traditional classification
   c. Advantages of the distinctive feature classification
5. Why do we need the notion "segment"?
6. a. Segment structure: principles that govern the way distinctive features combine to form segments (level I. 4)
   b. Why do we need segment structure rules?

7. Syllable structure: principles that govern the way segments combine to form syllables (level I, 5)
   b. Why do we need the notion "syllable"?
   c. Why do we need "onset", "rime", "nucleus", "coda"?
   d. Why do we need "head" and "nonhead"?

8. a. Morphological structure: morpheme, stem, affix (level I, 7)
   b. Why do we need morphological structure in phonology?

9. a. Phonemic and phonetic representations (level I, 6)
   b. Why do we need phonemic representations, in addition to distributional constraints and phonetic representations?
   c. Why do we need to assume that phonemic and phonetic inventories need not be identical?
   d. Why "X becomes Y" rather than "Y becomes X"?

10. Why do we need rule ordering in phonology?

Level III: The Generative Paradigm

1. The concept of science in generative linguistics
   a. Theory: hypothetical constructs, statements on these constructs, structure, predictions
   b. Explanation as match beween prediction and observation
   c. Evaluation of theories: motivation, comparison with alterntivs, simplicity, and beauty
2. The object of inquiry
   a. The human language faculty; language as an individual's knowledge as opposed to language as a social entity.
   b. Language faculty and grammar
3. Relevant data for the investigation of this object
   a. corpus: spontaneous corpus and elicited corpus
   b. speaker behaviour
      (i) Internal evidence:
         distribution (possible and impossible forms)
         alternation (possible and impossible relatlionships between forms)
      (ii) External evidence:
         (i) pauses
         (ii) play languages
         (iii) verse patterns
         etc.
4. Inventing analyses
   a. How do we account for data?
   b. How do we motivate proposals?
   c. How do we chooose the best proposal?
   d. How do we evaluate proposals and arguments?

Title	**Writing Systems and Decipherment**
Level	Upper division undergraduate
Description	Covers the origin and history of writing, types of writing systems (alphabetic, syllabic, etc.), relationships between writing and speech, codes and cryptanalysis, and decipherment of ancient languages.
Syllabus	Introduction to the Study of Writing Characterization and Typology of Symbols and Script Origin, Evolution, and History of Writing Diffusion of Writing Generalizations and Universals of Writing Cryptanalysis Decipherment of Egyptian Hieroglyphs Survey of Undeciphered and Partially Deciphered Scripts Decipherment of Mayan Hieroglyphs Implications and Applications of the Study of Writing
Requirements	Two exams, assigned exercises
Source	University of Minnesota-Minneapolis Instructor: Gerald Sanders

LINGUISTICS IN THE UNDERGRADUATE CURRICULUM

APPENDIX 6

Library List: A Suggested Library Collection for Undergraduate Linguistics Programs

The views expressed are those of the authors and do not necessarily reflect the position of the LSA or the National Endowment for the Humanities.

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PREFACE

The Linguistics in the Undergraduate Curriculum (LUC) project is an effort by the Linguistic Society of America (LSA) to study the state of undergraduate instruction in linguistics in the United States and Canada and to suggest directions for its future development. It was supported by a grant from the National Endowment for the Humanities during the period 1 January 1985-31 December 1987. The project was carried out under the direction of D. Terence Langendoen, Principal Investigator, and Secretary-Treasurer of the LSA. Mary Niebuhr, Executive Assistant at the LSA office in Washington, DC, was responsible for the day-to-day administration of the project with the assistance of Nicole VandenHeuvel and Dana McDaniel.

Project oversight was provided by a Steering Committee that was appointed by the LSA Executive Committee in 1985. Its members were: Judith Aissen (University of California, Santa Cruz), Paul Angelis (Southern Illinois University), Victoria Fromkin (University of California, Los Angeles), Frank Heny, Robert Jeffers (Rutgers University), D. Terence Langendoen (Graduate Center of the City University of New York), Manjari Ohala (San Jose State University), Ellen Prince (University of Pennsylvania), and Arnold Zwicky (The Ohio State University and Stanford University). The Steering Committee, in turn, received help from a Consultant Panel, whose members were: Ed Battistella (University of Alabama, Birmingham), Byron Bender (University of Hawaii, Manoa), Garland Bills (University of New Mexico), Daniel Brink (Arizona State University), Ronald Butters (Duke University), Charles Cairns (Queens College of CUNY), Jean Casagrande (University of Florida), Nancy Dorian (Bryn Mawr College), Sheila Embleton (York University), Francine Frank (State University of New York, Albany), Robert Freidin (Princeton University), Jean Berko-Gleason (Boston University), Wayne Harbert (Cornell University), Alice Harris (Vanderbilt University), Jeffrey Heath, Michael Henderson (University of Kansas), Larry Hutchinson (University of Minnesota, Minneapolis), Ray Jackendoff (Brandeis University), Robert Johnson (Gallaudet College), Braj Kachru (University of Illinois, Urbana), Charles Kreidler (Georgetown University), William Ladusaw (University of California, Santa Cruz), Ilse Lehiste (The Ohio State University), David Lightfoot (University of Maryland), Donna Jo Napoli (Swarthmore College), Ronald Macaulay (Pitzer College), Geoffrey Pullum (University of California, Santa Cruz), Victor Raskin (Purdue University), Sanford Schane (University of California, San Diego), Carlota Smith (University of Texas, Austin), Roger Shuy (Georgetown University), and Jessica Wirth (University of Wisconsin, Milwaukee).

INTRODUCTION

The LUC Project has gathered some information and materials which may help new programs develop library collections sufficient to support the needs of an undergraduate linguistics major. Obviously a library must serve course needs by containing regularly assigned readings as well as materials for student research papers. Less obvious, but equally important, a library should serve a broadening function by containing material which may never be assigned in courses but will engage the attention of the interested student and will suggest the range of the field. Ideally, such a collection will contain work representative of different subfields and approaches, earlier work as well as current work, and work in languages other than English.

A General List

The most useful bibliography in print is Books for College Libraries, compiled in 1967 and revised in 1975. Commissioned in the early 60's when the state of California decided to open several new campuses with strong undergraduate programs (Santa Cruz, San Diego, Irvine, Riverside), the bibliography lists holdings judged necessary for the libraries of these campuses. The 1975 edition contains 40,000 entries and covers the period up to about 1970. The book is organized by Library of Congress call numbers. Inevitably, materials relevant to linguistics are scattered, but most are localized in P ("Language and Literature"), specifically P-PL. Some 400 titles are listed. The vast majority of books are in English (including many translations). Foreign language books are limited to grammatical materials on particular foreign languages. This bibliography is particularly well-suited to undergraduate library development because it lists only books (unlike A Bibliography of Contemporary Linguistic Research, compiled by G. Gazdar, E. Klein, and G. Pullum (1978), which includes articles), and those books cover the field rather broadly. However, the lack of post-1970 material (practically all generative work falls into this period) is a significant hole.

A Journal List

What journals should a college library have? There are literally hundreds dealing with linguistics; the University of California (UC) catalogue lists over 100 periodicals containing the words linguistics, linguistic, or language. Many are very specialized and are, therefore, found at few UC campuses. Only the following journals are found in the libraries of all UC campuses (excluding UC, San Francisco, a medical school), as well as those of Stanford, the University of Southern California, and the California State University (eleven library systems in all). Excluded from this list are journals which deal with specific language groups, e.g., Oceanic Linguistics, and journals devoted to the literary study of language and to chiefly educational concerns.

Brain and Language
General Linguistics
Journal of Linguistics
International Journal of American Linguistics
Journal of Child Language
Journal of Memory and Language
Language
Language and Speech
Language in Society
Language Problems and Language Planning
Linguistic Analysis
Linguistics and Philosophy
Linguistic Inquiry

The list is enlarged if we add those journals found in nine or ten of these library systems:

American Journal of Computational Linguistics
Annual Review of Applied Linguistics
Anthropological Linguistics
Applied Psycholinguistics
Foundations of Language
International Journal of Psycholinguistics
International Journal of the Sociology of Language
Language and Communication
Language Sciences
Language Teaching
Language Teaching and Linguistics: Abstracts
Linguistics
Natural Language and Linguistic Theory
Papers in Linguistics
Speech and Language
Studies in Language
Studies in Language and Linguistics
Studies in Linguistics
Theoretical Linguistics

This List

In order to get a sense of what the linguistics holdings of a reasonably well-developed undergraduate college library might look like, the LUC Project Steering Committee asked Jeannine Heny, then at Middlebury College, to obtain a list of Middlebury's linguistics holdings. The Middlebury material is arranged alphabetically under ten headings, corresponding to the ten best represented subareas in the Middlebury library (numbers following headings list the approximate number of entries):

Linguistics (ca. 360)
  (general linguistics, history of linguistics, some theory)
Semantics (ca. 250)
Grammar Comparative and General (ca. 200)
  (syntax, phonology, morphology, historical linguistics)
Sociolinguistics (ca. 140)

855

Psycholinguistics (ca. 110)
Language Acquisition (ca. 70)
Bilingualism (ca. 60)
Animal Communication (ca. 50)
Phonetics (ca. 50)
Mathematical Linguistics (ca. 20)

Most of the books listed were published after 1970, and there are many foreign language books.

The Middlebury list was created mechanically and contains some idiosyncracies: some irrelevant works are included, e.g., a book on chemical control of insect behavior appears under animal communication. Some important books are not included because they are listed under otherwise sparse subject headings. Some entries are listed under multiple headings. In addition, diacritics appear in the printout as control characters.

Control Characters Used for Diacritics

bx = x́

px = x̧

hx = ẍ

ax = x̀

dx = x̃

gx = x̌

The Middlebury bibliography is not intended as a model, nor is it specially endorsed by the LSA. The holdings should be viewed as an example of an undergraduate linguistics collection, developed by an active and fairly well-funded library in conjunction with an interested faculty member. It is not the result of an intensive bibliographic effort, using a panel of experts, such as the previously mentioned Books for College Libraries. But as an example of the (partial) holdings of one college library, it may be useful in developing programs.

The LUC Project thanks the Middlebury College Library for its generosity in allowing this list to be part of the materials collected by the project.

04-Jun-87 BOOK, SERIAL
STARR SPEC COLL MUSIC SCI CTR DAVISON N STUDIES

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P106 A2 1982 University of Minnesota Press, c1982.

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P81 G7 A2 Princeton University Press, 1967.

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PQ81 A3 Larousse, 1976.

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P381 R8 A78 Izd-vo Akademii nauk SSSR, 1962.

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PG350 L5 Izd-vo Shtiinktisa, 1973.

857

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P53 G42 1983 Georgetown University Press,
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P121 H33 Nymphenburger Verlagshandlung, c1975.

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